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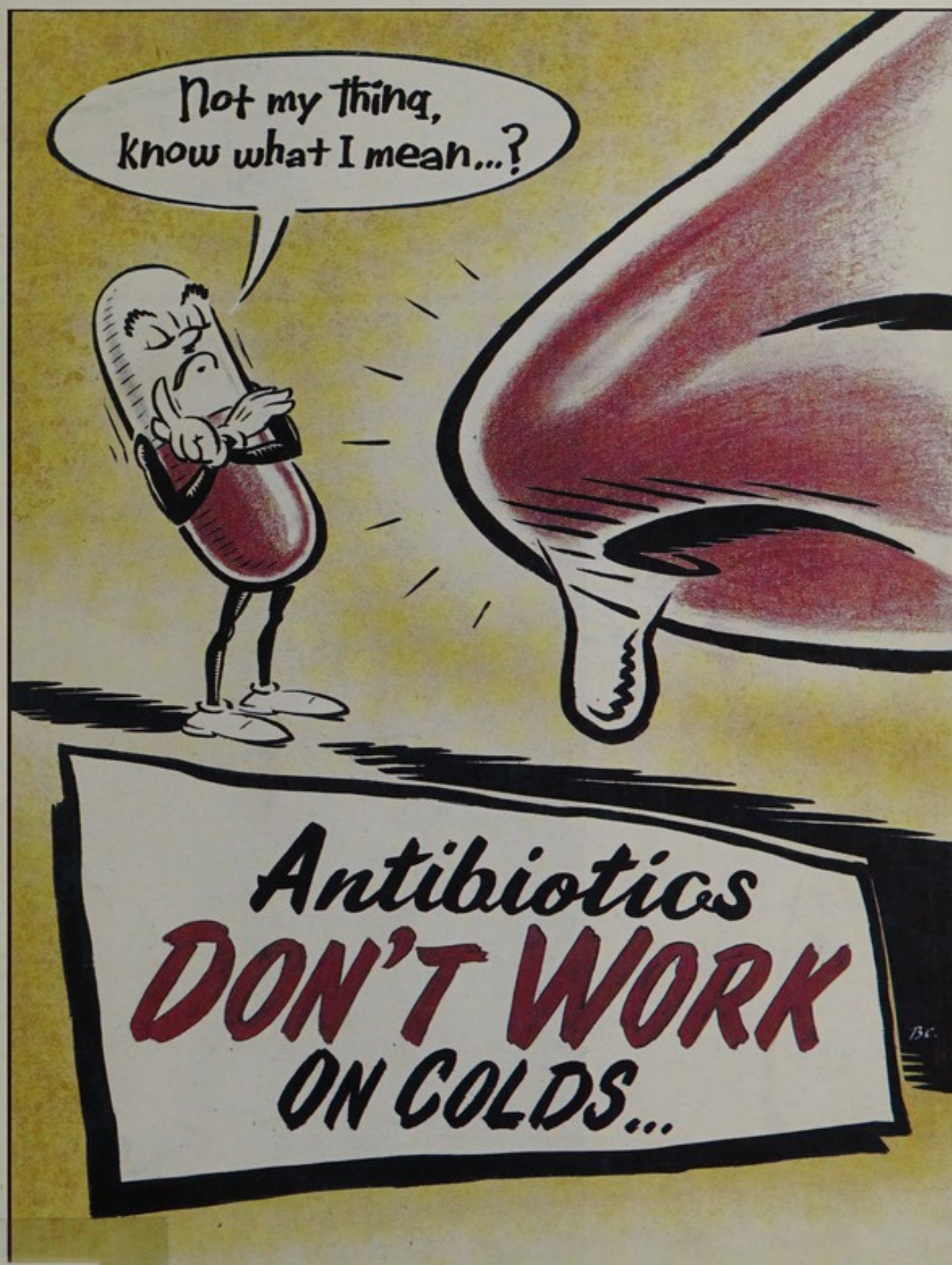
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SELECT COMMITTEE ON  
SCIENCE AND TECHNOLOGY

## RESISTANCE TO ANTIBIOTICS



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RESISTANCE TO ANTIBIOTICS

WITH EVIDENCE

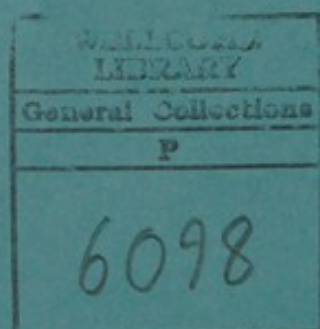
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SELECT COMMITTEE ON  
SCIENCE AND TECHNOLOGY

RESISTANCE TO ANTIBIOTICS

WILLIAM F. BRYAN





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## ORAL EVIDENCE

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Dr Mary O'Mahony, Department of Health; and Mr Ray Anderson, Ministry of Agriculture,  
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# THIRD REPORT

22 MARCH 2001

By the Select Committee appointed to consider Science and Technology.

ORDERED TO REPORT

## RESISTANCE TO ANTIBIOTICS

1. In March 1998 this Committee sounded an alarm over the rise of drug-resistant bacteria (and other pathogens), fuelled by imprudent use of antibiotics and other antimicrobial agents<sup>1</sup>. Three years on, we have revisited this issue, with the help of a comprehensive memorandum from the Department of Health<sup>2</sup>, and a public hearing with Yvette Cooper MP, Parliamentary Under-Secretary of State at the Department of Health, and officials from her Department and from the Ministry of Agriculture, Fisheries and Food (MAFF). We have concentrated this time on the resistance of bacteria to treatment with antibiotics. The memorandum and a transcript of the hearing are printed with this Report.

2. The problem which so alarmed us in 1998 has not gone away. The true "superbug", resistant to all drug treatments, has yet to emerge. Yet, owing to the continued and often vital use of antibiotics in clinical medicine, resistance is still on the rise, slowly but surely sapping the usefulness of existing drugs. Meanwhile the pharmaceutical industry has brought to market just one new class of antibiotic<sup>3</sup>.

3. The Government's response to our original report<sup>4</sup> was extremely positive, promising action and expenditure in many of the areas which we identified. As recorded below, in some of those areas action was duly taken, to good effect. In other areas, however, action has been slow, leaving us to wonder whether our original report failed to convey the full seriousness of the situation. We repeat the main message: **the inevitable rise and spread of resistance will render existing drugs progressively less useful. In the absence of new drugs, this leaves us increasingly at the mercy of infections. We cannot eliminate resistance. We can however slow it down, by using antibiotics only when necessary, and by rigorous infection control and basic hygiene, both informed by thorough surveillance.**

4. The Government's memorandum refers extensively to bureaucratic instruments: strategies, guidelines, circulars and the like. In an organisation as large and complex as the NHS these are of course a necessary *precursor* to action, and we welcome the effort that is being made. However they are no *substitute* for action on the ground; and it is on action on the ground that we have concentrated in this short follow-up exercise. We caution against central guidance becoming too detailed and prescriptive, and we were reassured by the Minister's willingness to recognise this danger (Q 19).

### *Prescribing by GPs*

5. First, the good news. Prescribing of antibacterials by GPs in England declined by 19 per cent between the year ending September 1997 and the year ending September 1999 (p 3). The Minister told us that the figures for 1999-2000 show a further fall (Q 12).

6. **This is a very welcome development**, in which the Department of Health, the medical profession and the patient public should all take pride. Every needless dose of antibiotics increases the evolutionary pressure in favour of resistant strains, hastening the day when the drug in question becomes useless. Cutting down on unnecessary prescribing will not have halted or eradicated resistance; but it will have slowed its spread, and prolonged the useful life of these vital medicines.

<sup>1</sup> *Resistance to Antibiotics and other antimicrobial agents*, 7th Report 1997-98, HL Paper 81, ISBN 010 478998. That report and this one are on the Parliament web site [www.parliament.uk](http://www.parliament.uk)

<sup>2</sup> Our original report covered the whole United Kingdom, and the memorandum helpfully does the same. Since however health is a devolved matter, this report deals only with England.

<sup>3</sup> The oxazolidinone Linezolid.

<sup>4</sup> Cm 4172, December 1998.



7. One approach which may have helped GPs to avoid prescribing an antibiotic, while at the same time allowing the patient to leave the surgery satisfied, is the "non-prescription" form which we recommended and which the Department duly developed. It appears on the back of the dustjacket of this report. The form gives a diagnosis, reasons why antibiotics would be inappropriate, and advice on what the patient should do instead. The Department indicates that this tool has not been evaluated (p 8); **we recommend that it should be.**

#### *Prescribing in hospitals*

8. Whether this trend has been mirrored in hospitals is not known. Rather to our dismay, data on drug use in hospital, which were unsatisfactory in 1998, are no better today (Q 12). The Electronic Patient Record is planned to provide complete data. According to the Minister, such records will be in use in 35 per cent of hospitals by the end of next year, and in all hospitals by 2005; but (as explained in detail in our report *Human Genetic Databases*) we have reason to doubt whether these targets are realistic. As an interim measure the Department has tried to obtain information from a commercial supplier (p 11), so far without success (Q 33).

9. In the mean time, it is of some comfort that all hospital Trusts are now required to have a formal prescribing policy. Most now do; those which do not are being harried by the Department (Q 12). **We encourage the Department to pursue the laggards as a matter of urgency.**

#### *Antibiotics for animals*

10. There is good news about this problem from the agricultural sector. Sales of antibiotics for use in animals—the best available proxy for actual use—have fallen from a peak of 629 tonnes of active ingredient in 1996 to 411 tonnes in 1999. The largest fall is in the antibiotic "growth promoters" administered by farmers; the EU banned four of these from July 1999, including virginiamycin, about which we expressed most concern three years ago<sup>5</sup>. This leaves only a further four in use, none of which has an analogue in human medicine (Q 5); their status is under close review by the EU Commission.

11. Use of antibiotics by veterinary surgeons has also fallen, though not by so much. We expressed greatest concern over use by vets of the fluoroquinolones<sup>6</sup>; use of these potent drugs has hardly changed (Q 4).

12. We called in 1998 for clear codes of practice guiding vets on the prudent use of antibiotics, particularly fluoroquinolones. We are pleased to hear that the profession has taken up this challenge, and that there is now a "plethora" of such codes (p 12, Q 4), all of which encourage only the most sparing use of fluoroquinolones.

13. These codes are no doubt partly responsible for the fall in volumes noted above. Credit must also go the British Veterinary Association for its courses in veterinary pharmacy. Other factors probably playing a part are consumer pressure, and the prolonged crisis in farm incomes (QQ 9-11). **We urge the veterinary profession to continue to reinforce the message.**

14. Experience in Denmark, Sweden and other countries has shown that, with improved husbandry, farmers can do without growth promoters altogether; this is now official EU policy<sup>7</sup>. MAFF is funding research into improved husbandry (Q 11); **we welcome this, and look forward to seeing it turned into practice.**

#### *Public education*

15. It was one of our principal recommendations in 1998 that a major campaign should be undertaken to educate the public in the prudent use of antibiotics. The Government and other bodies held such a campaign in the autumn of 1999, and it no doubt contributed to the fall in GP prescribing noted above. A poster from the campaign, which was displayed in many pharmacies and GP surgeries, appears on the front of the dustjacket of this report.

<sup>5</sup> The reason for our concern was that virginiamycin is closely related to the antibiotic Synercid used in human medicine. A pathogen which evolved resistance to the one might thereby acquire resistance to the other. Even if that pathogen were not itself a threat to humans, it might pass the resistance to another which was.

<sup>6</sup> Because it is suspected, though not proved, that use of the fluoroquinolones enrofloxacin and danofloxacin in animals has contributed to a rise in resistance to ciprofloxacin, a fluoroquinolone used in human medicine against *Salmonella* and *Campylobacter*.

<sup>7</sup> Council Resolution 1999/X195.01, 8 June 1999.



16. It was our view in 1998, and we maintain it, that the mother of young children is a key figure. Out of understandable concern for her children's health, she is likely to put particular pressure on her GP to prescribe antibiotics even when the doctor is quite sure that they are inappropriate. We therefore recommended that campaigns of public education should pay particular attention to this audience. Mothers of young children were duly targeted by the campaign in 1999, and their attitudes measurably changed: before the campaign 40 per cent<sup>8</sup> would have expected antibiotics for a child with a bad cough; afterwards, the figure was 27 per cent.

17. We are somewhat taken aback to find that the Minister now regards the concept of the mother as guardian of her family's health as outdated (Q 2). We concede that it may be unfashionable; but public health must not be subordinated to political correctness. She was however willing to consider seeking to place suitable articles in popular women's magazines; **we encourage the Department of Health to pursue this.**

18. The Minister indicated that further public awareness campaigns are under consideration (Q 2). **We strongly recommend that a specific campaign against inappropriate use of antibiotics be repeated at frequent and regular intervals.** So long as antibiotics remain crucial in the fight against infectious disease, it will continue to be necessary to bear down on inappropriate use in order to slow down resistance; if public education ceased, such use would surely begin to rise again.

#### *Professional education*

19. We recommended that campaigns of public education should go hand-in-hand with changes to the curricula of professional education for doctors and nurses, to give more time to study of appropriate prescribing and infection control. In this area we are dismayed that so little has in fact changed. While we acknowledge that the Government does not and should not control professional curricula, and that there are always many competing claims on curriculum space, we nonetheless find this profoundly unsatisfactory.

20. The Minister told us that the Department of Health are now engaged, with the British Society of Antimicrobial Chemotherapy<sup>9</sup>, in "scoping" some educational materials (Q 13); and that they have raised the matter with the General Medical Council in the context of their review of *Tomorrow's Doctors*, the framework document for medical education, and with the medical Royal Colleges in the context of their review of the grade of senior house officer. **We encourage the Department to press ahead with all these initiatives.**

#### *MRSA*

21. Methicillin-resistant *Staphylococcus aureus* (MRSA) is a resistant strain of a very common bacterium. To healthy people it is usually harmless; but it is a scourge of vulnerable people in hospitals and nursing homes, particularly institutions with poor basic hygiene and infection control.

22. It was concern about MRSA in hospitals which prompted our original inquiry in 1997. At that stage, MRSA was endemic and ineradicable in some UK hospitals. Today, it appears to be endemic in almost all hospitals.

23. We recommended in 1998 that the NHS should set itself targets for the control of MRSA in hospitals, and monitor and publish performance. The Minister told us that hospitals will be required to report MRSA incidents from April this year, and that annual results will be published from April 2002 (QQ 12, 20).

24. We are surprised that this has taken three years; the bacterium has not been idle during this time. **We are nonetheless pleased that it is now to go ahead.** As the Minister observed, publishing these figures will concentrate the minds of Chief Executives of hospital trusts (Q 15).

#### *Infection control and basic hygiene*

25. Two of the best weapons against MRSA and other resistant infections are two of the oldest: infection control and basic hygiene. In our original report, we recommended that the Government should put these where they belonged, at the heart of good hospital practice.

<sup>8</sup> Of a sample of 1600.

<sup>9</sup> Of which our Specialist Adviser is a past President.



26. This message has evidently got through<sup>10</sup>. The new Controls Assurance Standards set for the NHS in November 1999 include one for infection control; and all hospitals now have an infection control team including at least one specialist infection control nurse (p 14). The Government has also launched the Hospital Clean-Up Initiative, with investments of £31m in 2000-01 and a further £30m in 2001-02, and a member of the board of each hospital trust is now personally responsible for monitoring cleanliness around the hospital. **We warmly welcome these initiatives, and the Minister's declaration that infection control and basic hygiene are "core issues" for the NHS (Q 14).**

27. In our original inquiry, we met the team of infection control nurses at a major teaching hospital. We were impressed by their skills and commitment, but appalled at the scale of the task faced by this small group. We drew attention then to the disparity between the US benchmark figure of one infection control nurse to 250 beds, and the UK figure of one to between 400 and 700. We repeated these figures to the Minister. She responded that setting a ratio of nurses to beds is up to each trust, not the Government; but she added that the Department are at work on a "tool kit" for trusts on staffing levels and skill mix (Q 17). **We urge the Department, in composing this tool kit, to emphasise to trusts the crucial importance of a sufficient and properly supported team of infection control nurses.**

#### *Infection control in community settings*

28. In 1998 we described infection control in community settings, such as nursing and residential homes, as an area of particular weakness. According to the Minister this is still the case (Q 23). She described various actions currently in hand to improve the situation: the Controls Assurance programme is to be extended to the community; guidelines are being drafted, for endorsement by the National Institute for Clinical Excellence (NICE) and publication next year; and the matter is also under consideration by Regional Directors of Public Health.

29. These actions are welcome. Nonetheless we consider that **four years is too long to wait for action in such an important area. Action should be taken immediately to address these concerns.**

#### *Public Health Laboratory Service*

30. The Public Health Laboratory Service (PHLS) is, as the Minister put it, a "key player" in the fight against antibiotic resistance (Q 40).<sup>11</sup> The PHLS is funded by the Department of Health, the Welsh Assembly, the NHS and others to help to prevent and control infectious disease. Its laboratories identify resistant organisms, both to inform treatment of particular patients and to map and monitor the rise and spread of resistance.

31. In 1998 we expressed concern that this aspect of the PHLS's work was seriously underfunded. The Government responded with an immediate and very welcome injection of £2.3m for 1999-2000. The Minister told us that the PHLS's core funding from the Department of Health is now on a firm footing (Q 38), with guaranteed inflation increases, plus growth funding for agreed developments. **We welcome this news.**

#### *Research*

32. In our original report, we identified a gap in research support for the sort of research, crucial in a field such as this, which consists largely of surveillance and the collection of data, whether of disease, drug use or both. The Minister confirmed that, though departmental research funds are not available for routine surveillance, they are available for research which includes an element of surveillance (Q 25). **We welcome this assurance, and encourage researchers in this field to take full advantage of it.**

#### *Compatibility of IT*

33. Surveillance and data collection are crucial to the fight against resistance, and continue to be hampered by the existence within the NHS of many incompatible systems of information technology (IT). The Minister drew our attention to the achievement of Electronic Patient Records, planned for

<sup>10</sup> With help from reports on *Management and Control of Hospital Acquired Infection in Acute NHS Trusts in England* by the National Audit Office (HC 230 1999-2000) and the House of Commons Public Accounts Committee (42nd Report, HC 306 1999-2000).

<sup>11</sup> Lord Turnberg, who participated by invitation in the preparation of this report, declared an interest as Chairman of the Board of the PHLS.



2005, which ought at least to produce compatible data on prescribing; but correlating these data with PHLS data on infections will still not be possible. We do not underestimate the difficulty of rectifying this situation. Nonetheless **we are disappointed that the Department was unable to give us even a target date for full compatibility of these data-collection systems (Q 36).** We will have more to say on this subject in our report on *Human Genetic Databases*.

#### *Expert advisory group*

34. We end this report on a positive note, with the news that, as recommended by the Swann Committee<sup>12</sup> in 1969, and accepted by the Government in their response to our report over two years ago, a single multi-disciplinary expert advisory committee is at last being set up, with a remit to advise Government on all aspects of the use of antibiotics. **We are appalled that this has taken so long, but glad that it is happening at last,** and doubly so because our Specialist Adviser, Professor Richard Wise, is to be its first chairman. This gives us a reliable guarantee that the message of our original report, which we repeated at the head of this one, will be heard and heeded.

35. The Département indicated that the advisory committee will be resourced at a level appropriate to what it sets out to do (Q 46). **We welcome this assurance, and look forward to its implementation.**

#### *Conclusion*

36. We described our original inquiry as an alarming experience. Revisiting the subject, we are encouraged at the tangible progress which has been made, particularly in bringing down levels of use of antibiotics in both humans and animals. There is however much more to do, particularly in bearing down on MRSA and other resistant infections in hospitals and community settings, and in bridging gaps and incompatibilities in surveillance. We may well revisit this subject in another few years, and would hope to see considerable progress in these areas too.

#### SUMMARY OF RECOMMENDATIONS

37. The inevitable rise and spread of resistance will render existing drugs progressively less useful. In the absence of new drugs, this leaves us increasingly at the mercy of infections. We cannot eliminate resistance. We can however slow it down, by using antibiotics only when necessary, and by rigorous infection control and basic hygiene, both informed by thorough surveillance (para 3).

38. The significant fall in prescribing of antibiotics by GPs is a very welcome development (para 6). The "non-prescription pad" produced by the Department of Health in 1999 should be evaluated (para 7).

39. We encourage the Department to pursue as a matter of urgency hospital trusts which do not yet have a formal prescribing policy (para 9).

40. We urge the veterinary profession to continue to reinforce the message of prudent use of antibiotics, especially the fluoroquinolones (para 13).

41. We welcome MAFF's research into improved husbandry as an alternative to use of growth promoters, and look forward to seeing it turned into practice (para 14).

42. We strongly recommend that a specific campaign against inappropriate use of antibiotics be repeated at frequent and regular intervals (para 18). We encourage the Department of Health to pursue the placing of suitable articles of public health education in popular women's magazines (para 17).

43. We encourage the Department of Health to press ahead with their initiatives to improve coverage of antibiotic resistance in professional education (para 20).

44. We are pleased that nationwide monitoring of MRSA in hospitals is now to go ahead (para 24).

45. We warmly welcome the Government's initiatives on infection control and cleanliness in hospitals, and the Minister's declaration that infection control and basic hygiene are "core issues" for the NHS (para 26). We urge the Department, in composing its tool kit for trusts on staffing levels and skill mix, to emphasise to trusts the crucial importance of a sufficient and properly supported team of infection control nurses (para 27).

46. Four years is too long to wait for action in such an important area as infection control in community settings such as nursing homes. Action should be taken immediately to address these concerns (para 29).

<sup>12</sup> Committee on the Use of Antibiotics in Animal Husbandry and Veterinary Medicine.



47. We welcome the news that the PHLS's core funding from the Department of Health is now on a firm footing, with guaranteed inflation increases, plus growth funding for agreed developments (para 31).

48. We welcome the Minister's assurance that, though departmental research funds are not available for routine surveillance, they are available for research which includes an element of surveillance, and we encourage researchers in this field to take full advantage of it (para 32).

49. We are disappointed that the Department was unable to give us even a target date for full compatibility of NHS and PHLS data-collection systems (para 33).

50. We are astonished that it has taken so long to set up a single multi-disciplinary expert advisory committee with a remit to advise Government on all aspects of the use of antibiotics, but we are glad that it is happening at last (para 34). We welcome the assurance that the advisory committee will be resourced at a level appropriate to what it sets out to do; we look forward to its implementation (para 35).

## APPENDIX

*The members of the Select Committee are:*

Lord Flowers (*co-opted*)  
 Lord Haskel  
 Lord Howie of Troon  
 Lord Jenkin of Roding  
 Lord Lewis of Newnham  
 Lord McColl of Dulwich  
 Lord Methuen  
 Lord Oxburgh  
 Lord Patel  
 Lord Perry of Walton  
 Baroness Platt of Writtle  
 Lord Quirk  
 Lord Rea  
 Lord Soulsby of Swaffham Prior (*co-opted*)  
 Lord Wade of Chorlton  
 Baroness Walmsley  
 Lord Walton of Detchant  
 Baroness Warwick of Undercliffe  
 Baroness Wilcox  
 Lord Winston (*Chairman*)

*The Committee appointed as its Specialist Adviser:*

Professor Richard Wise, Consultant and Professor in Clinical Microbiology, Birmingham City Hospital NHS Trust, Chairman designate of the expert advisory group on antimicrobial resistance.

*Declarations of interest:*

Lord Jenkin of Roding	Chairman of the Foundation for Science and Technology.
Lord Oxburgh	Rector of the Imperial College of Science, Technology and Medicine (to January 2001).
Lord Patel	Chairman of Genetics Advisory Committee, MRC; Founder and Council Member, Academy of Medical Sciences; Chairman, Clinical Standards Board of Scotland.
Lord Rea	Former NHS General Practitioner; Trustee, Patron or Vice-Patron of several health-related charities.
Lord Wade of Chorlton	Farmer; Chairman of Appeals for Christie Hospital, Manchester.
Lord Walton of Detchant	President, Patron, Vice-President or Vice-Patron of numerous medical charities; neuroscience adviser to a pharmaceutical company; immediate Past-President, World Federation of Neurology; Past-President, British Medical Association, Royal Society of Medicine, GMC and Association of British Neurologists; Founding Fellow, Academy of Medical Sciences; former Member, MRC.
Lord Winston	Director of Research and Development for the Hammersmith Hospitals NHS Trust; Professor of Fertility Studies at the Imperial College School of Medicine.





# MINUTES OF EVIDENCE

TAKEN BEFORE THE SELECT COMMITTEE ON SCIENCE AND TECHNOLOGY

THURSDAY 1 MARCH 2001

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Present:

Flowers, L.	Turnberg, L.
Haskel, L.	Walmsley, B.
Howie of Troon, L.	Walton of Detchant, L.
Jenkin of Roding, L.	Wilcox, B.
Platt of Writtle, B.	Winston, L. (Chairman)
Rea, L.	
Soulsby of Swaffham Prior, L. (in the Chair)	

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## Memorandum by the Department of Health

### RESISTANCE TO ANTIBIOTICS AND OTHER ANTIMICROBIAL AGENTS

#### 1. INTRODUCTION

1.1 The Committee asked for an update on the progress made on implementation of the Government's response given in December 1998, to the Committee's report "Resistance to Antibiotics and Other Antimicrobial Agents" published in March 1998. This memorandum responds to that request and is set out in three parts:

- an overview of action on tackling antimicrobial resistance;
- details of current trends in antimicrobial resistance;
- progress on the Government's responses to the Committee's specific recommendations.

1.2 The Government was pleased to welcome the Committee's report and recognises it as having been a stimulus to a wide range of action both nationally and internationally to tackle the problem of antimicrobial resistance, which remains a major public health threat.

1.3 At the time of the Government's response to the Committee's report much work was already being done, and further action on a national and international scale was planned.

1.4 This memorandum summarises progress so far and emphasises the Government's commitment to long-term action in this area in order that the gains achieved so far will be maintained.

#### 2. OVERVIEW

##### *UK Strategy on Antimicrobial Resistance*

2.1 The response outlined the Government's comprehensive strategy to address the problem of antimicrobial resistance. This strategy was developed and published by the Department of Health (DH) in June 2000 along with an action plan setting out the tasks involved in achieving its objectives. A copy of the full strategy is at Annex A (*not printed*). It was developed by a number of Government Departments. The strategy is endorsed by all countries in the United Kingdom and will lead to sustained action to combat the problem. It takes into account the recommendations in the Committee's report, those of the Standing Medical Advisory Committee (SMAC), in its report "*The Path of Least Resistance*", recommendations from the World Health Organisation's (WHO) former Division of Emerging and Other Communicable Diseases Surveillance and Control, the recommendations of the European Conference on "The Microbial Threat" in Copenhagen in September 1998 and the World Health Assembly Resolution of May 1998. The UK strategy is being reflected in the work programmes of individual departments and the relevant bodies and organisations.

2.2 The Government departments and other organisations involved are also developing their own action plans with milestones to cover their own contributions to the overall strategy.

2.3 One aspect of the Strategy is better surveillance—to monitor "how we are doing", and to provide the data on resistant organisms, illness due to them, and antimicrobial usage to inform action. Another aspect is infection control—to reduce the spread of infection in general (and thus some of the need for antimicrobial agents) and of antimicrobial resistant micro-organisms in particular. The DH Healthcare Associated Infection Surveillance Steering Group has been established to provide strategic advice on healthcare associated infection surveillance needs in general. In order that co-ordinated action is taken, this group will take account of antimicrobial resistance surveillance. For hospital acquired infection a national surveillance service is being developed and all trusts will participate in this surveillance.



*1 March 2001]**[Continued]**Developing and Delivering the Strategy***Interdepartmental Steering Group on Antimicrobial Resistance**

2.4 Implementation of the strategy is being overseen by a multi-disciplinary pan-UK Interdepartmental Steering Group on Antimicrobial Resistance (IDSG). This Group was first set up in 1998 to co-ordinate work on the Government's response to the Committee's report. It consists of Departmental officials and others with responsibility for implementing the UK Strategy and is chaired by the Deputy Chief Medical Officer in the DH Public Health Group. Sub-Groups with co-opted experts in the relevant areas have been established to further develop work in the following areas:

- Clinical Prescribing—this Sub-Group, which has a two year programme of work in the first instance, is looking at ways of optimising (and monitoring) prescribing of antimicrobials in clinical practice through professional education, promotion of evidence-based guidelines, prescribing and organisational support and surveillance. This sub-group has met five times and is chaired by the Director of the PHLS. Its first report is due at the end of the year.
- Research—this Sub-Group, comprising representatives of all of the key funding bodies in the research field, was established to promote a co-ordinated programme of research, responsive to policy needs including veterinary and medical basic and applied research. This Group provides input into the IDSG in relation to its role in developing a strategy to address research priorities for antimicrobial resistance. Following a scoping exercise, the Group is setting relative priorities for new research in the field of antimicrobial resistance, in the light of existing research funding, and will oversee delivery of the antimicrobial resistance research agenda. This Sub-Group is chaired by the DH Director of Research and Development and has met four times since September 1999. Its first report is expected at the end of the year.
- Publicity—the first phase of an ongoing publicity campaign, aimed at reducing patients' expectations of receiving a prescription for antibiotics and at helping GPs to manage patients' expectations, ran last Autumn at a cost of £1.3 million and was well received. It was developed by a publicity group with representatives from the IDSG and the Clinical Prescribing Sub-Group. This Sub-Group, supplemented with appropriate professional and lay representation, will shortly start work on development of the next stage of the campaign (see recommendation 11.13/11.14). In the meantime the messages are being re-inforced in the Government's winter campaigns on colds and flu and in "on line" information.
- MAFF has also set up the MAFF Antimicrobial Resistance Committee (MARC) which feeds into the IDSG.

**Expert Advisory Committee on Antimicrobial Resistance**

2.5 In response to the Committee's recommendation, the Government agreed that there was a need for an overarching expert advisory committee to provide advice on the scientific aspects of antimicrobial use and on the development of the future strategy. The Government said that it would set up such a group. Work on the process of establishing this Committee, in accordance with Cabinet Office guidance, as a tier 1 Non-Departmental Public Body is near completion and an announcement about its membership will be made as soon as possible in the New Year.

**ACTION FOR THE NHS***England*

2.6 In response to the Committee's Report, action for the NHS in England was set out in HSC 1999/049, copy at Annex B (*not printed*), which was issued in March 1999. Regional Directors of Public Health are currently reviewing the progress made. The current National Priorities Guidance for the NHS in England "Modernising Health and Social Services—National Priorities Guidance 2000–01–2002–03" makes it clear that action to tackle hospital acquired infection and antimicrobial resistance must continue.

*Scotland*

2.7 MEL(1999)046, issued in May 1999, copy at Annex B, set out action for the NHS in Scotland in response to the Committee's report. A Scottish Executive Strategic Group on Antimicrobial Resistance has addressed the strategic issues involved, including technology. Its Scottish Action Plan was issued for consultation in August 2000 together with a copy of the UK Antimicrobial Resistance Strategy.



*1 March 2001]**[Continued]**Northern Ireland*

2.8 The NI Department of Health, Social Services and Public Safety (DHSS&PS) is developing its own strategy based on the UK strategy, to be published for consultation early in 2001. A Regional Advisory Committee on Communicable Disease Control (RACCDC), composed of independent experts, was established in March 1999 to provide a focus on all aspects of communicable disease in Northern Ireland; a key subgroup deals with hospital acquired infection. RACCDC is chaired by a Health and Social Services Trust Consultant Microbiologist and its membership includes an infection control nurse, a CDC Consultant, the Regional Epidemiologist, the Chairman of the General Consumer Council and the Deputy Chief Veterinary Officer.

*Wales*

2.9 The Welsh Hospital Infection Strategy Group, drawing representation from microbiologists, epidemiologists, consultants in communicable disease control, infection control nurses, health service managers and the Assembly, has taken a major lead in the development of the Welsh programmes in relation to surveillance and monitoring of hospital infection and antibiotic resistance. It is anticipated that this group will become a subgroup of the new Welsh Communicable Disease Control Committee currently being formed (see 2.10 below).

*Communicable Disease Strategy in England*

2.10 In its response, the Government said that the Chief Medical Officer had been asked to lead work on a communicable disease strategy to ensure that all activity in the area of communicable diseases is properly focussed and co-ordinated. Work on this Strategy continues, and will be completed during 2001. One of the aims in developing the communicable disease strategy, in which antimicrobial resistance and hospital acquired infection are recognised as key areas, is to identify ways of improving arrangements for handling communicable disease without the need for legislative change. Along side work on the communicable disease strategy, work has continued on the antimicrobial resistance strategy (see paragraph 2.1).

*Communicable Disease Strategy in Wales*

2.11 The National Assembly framework document on the Communicable Disease Strategy for Wales was published in May 2000. Responses to the consultation upheld the recommendations. The document established the need for a Welsh Communicable Disease Control Committee to act as the focus for all communicable disease issues, including antimicrobial resistance. The process to establish the Committee has now begun.

**3. TRENDS IN RESISTANCE AND PRESCRIBING**

3.1 The Government's strategy recognises that it may not be possible to reverse current levels of antimicrobial resistance or even in some instances, to maintain resistance at its current levels. The continued—and necessary—use of antimicrobials will continue to exert a “pressure” favouring the emergence of resistance.

3.2 New surveillance schemes being developed aim to broaden and improve our information on resistance levels and trends (see paragraph 86). They will also enable us to better identify particular resistances and organisms where action needs to be focussed.

*Resistance*

3.3 The SMAC Report “The Path of Least Resistance” gave details of the extent to which a number of organisms had developed resistance to antimicrobials as recorded in particular surveillance schemes. An update is provided at Annex C (*not printed*), tables 1-8, using the same schemes.

*Prescribing*

3.4 Changes in resistance may also be slow. One important indicator of progress on action to contain it is to monitor levels of antimicrobial use. Prescribing of all antimicrobials including antibacterials/fungals/virals in primary care in England declined by 12 per cent between 1995 and 1998 and has since fallen further. Prescribing of antibacterials by GPs in England declined by 19 per cent between the 12 months ending September 1997 and the 12 months ending September 1999. The decrease is shown in Annex C, table 9 (*not printed*).



*1 March 2001]**[Continued]**Use in Animals*

3.5 The VMD has published sales data on antimicrobial compounds for veterinary use in the period 1993–98. The report shows that there was a significant rise in the sale of antimicrobials from 1993–1996, followed by a fall in 1997 and 1998 to pre-1994 levels. Over the period 1993–1998 inclusive, antimicrobials sales in food animals accounted for 95 per cent (555 tonnes) of the mean annual sales of 584 tonnes. Just under half (47 per cent) of the total sales of antimicrobials for use in food animals is accounted for by tetracyclines whereas fluoroquinolones account for only about one tonne (0.2 per cent). The antimicrobial sales figures for 1999 are currently being collated.

3.6 Between 83 per cent–90 per cent of the antimicrobials sold for use in food animals during the six-year period were for therapeutic purposes, with growth promoters accounting for 10–17 per cent. About 80 per cent of antimicrobial products are administered via feedstuffs and most is used for pigs and poultry. Further work is needed to determine the species breakdown more accurately and a survey commissioned on the use of antimicrobials is close to completion.

**4. PROGRESS ON GOVERNMENT COMMITMENTS IN RESPONSE TO THE LORDS SELECT COMMITTEE REPORT****PRUDENT USE IN HUMAN MEDICINE***House of Lords' Recommendation: Education*

11.6 The Education Committee of the General Medical Council and the medical Royal Colleges should review the evidence that undergraduate curricula give insufficient emphasis to infectious diseases and antimicrobial therapy, and the Royal Colleges should increase the attention paid to antimicrobial therapy in their programmes of postgraduate education and vocational training.

*Summary of Government Response in December 1998*

The Government has brought the Committee's recommendations to the attention of these bodies. In approaches to the external bodies the following emerged:

- The General Medical Council will consider whether the Committee's recommendations can be accommodated in its review of "Tomorrow's Doctors".
- The Academy of Royal Medical Colleges had signalled its support for the recommendations.
- The English National Board for Nursing, Midwifery and Health Visiting (ENB) agreed to highlight issues in "The ENB News" and to feature antimicrobial resistance and an assessment of curricula content in meetings with Heads of Education Facilities. The ENB would also carry out a national overview to monitor coverage of infection control and antimicrobial resistance within curricula. A report on the findings will be disseminated.

*Progress Since Government Response*

1. The Interdepartmental Steering Group (IDSG) on antimicrobial resistance has considered what further approaches should be made to the external bodies including a possible review of the content of current undergraduate curricula, preferably within a more comprehensive review of infectious disease teaching. With the IDSG's support, the British Society for Antimicrobial Chemotherapy (BSAC) is establishing a small group to scope the production of problem-orientated materials for use—initially—in undergraduate education modelled on some more generic teaching material which the Group has seen which are being developed in Australia. If successful, they could be further developed for use for postgraduate education and continuing professional development.

2. The General Medical Council (GMC) has advised the Department that its review of "Tomorrow's Doctors" is well underway and that the thrust of the document will be unchanged. The text will be reformatted to bring it into line, stylistically, with subsequent GMC publications, particularly "The New Doctor and the Early Years". The content will also be reviewed throughout, and strengthened in some areas, for example, ethics, multi-cultural health care, inter-professional issues, and student assessment. A paper is expected to go to the Education Committee of the GMC in February 2001.

3. With specific reference to antimicrobial therapy, since October 1998 the GMC have enquired into the coverage of this subject in medical schools' curricula. The outcome is to be found in the reports of visits to individual medical schools, published on the GMC Website.

4. The ENB has undertaken all the work referred to above. The review of the pre-registration nurse training curricula is to be the subject of a joint ENB/Department of Health meeting involving ENB Regional Officers, Infection Control Nurses and Nurse Educationalists to explore the development of core educational standards for infection control in pre-registration nursing programmes.



*1 March 2001]**[Continued]*

5. The Royal College of Physicians in Edinburgh hosted a large conference on antimicrobial resistance and a further one, in collaboration with the Scottish Centre for Infection and Environmental Health (SCIEH), is planned for later in the year. Most of the other relevant professional bodies and societies have run similar conferences, seminars and study days to raise the profile of the topic during the last two years and others are planned.

#### HOUSE OF LORDS' RECOMMENDATION: PROFESSIONAL DEVELOPMENT OF DOCTORS

11.7 Health Authorities should step up their efforts in the areas of professional development of doctors in the area of prescribing, particularly through audit and feedback and by educational research.

#### *Summary of Government Response in December 1998*

- The NHS Executive will ensure that all HAs, PCGs and NHS Trusts develop, implement and review (at least annually) policies and guidelines on the management of infections and the appropriate use of antimicrobial drugs.
- Regional Directors of Performance Management will encourage use of the clinical governance framework to improve antimicrobial prescribing and ensure that local mechanisms for controlling the use of antimicrobials are appropriate and effective.
- A package of specific tools to enable HA Advisers to follow changes and target individual practices will be available in electronic format soon.

#### PROGRESS SINCE GOVERNMENT RESPONSE

6. Action for the NHS, as agreed by the NHS Executive Board, was issued in March 1999 under circular HSC 1999/049 and subsequently reinforced in February this year in HSC 2000/002, which included action to monitor and optimise antimicrobial prescribing. Copies of these circulars are at Annex B (*not printed*). The Commission for Health Improvement (CHI) has a role through its reviews of a Trust's clinical governance arrangements, which include clinical audit, in ensuring that their arrangements for clinical governance are sufficiently robust and effective to deal with this area of activity. CHI will look at mechanisms for controlling use of antimicrobials as part of a Trust's application of systems of clinical governance. CHI will also have a role in looking at what systems Trusts have in place to deal with HAI as part of clinical governance, in tandem with the Audit Commission. Regional Offices are reviewing the availability and implementation of local policies and guidelines and will, where necessary, follow up any quality and review issues. Regional Directors of Public Health have been asked to ensure that information about prescribing activity is fed into this review and to monitor progress on the action plan contained in HSC 2000/002.

7. The National Prescribing Centre (NPC) has developed a tool kit providing clinical audit guidance on antimicrobial prescribing and monitoring. This has been disseminated to all Health Authorities (HAs), Primary Care Groups/Trusts (PCGs/Ts) and hospital Trusts. A change management resource pack has also been developed by the NPC, in which the prudent prescribing of antimicrobial agents is used as an illustrative example. The NPC has run four full-day therapeutics seminars for HA and senior PCG/T prescribing advisors this year on the proper use of antimicrobials. Nineteen (including two from Wales) senior prescribing advisors have been recruited by the NPC and given two days intensive training plus materials; they will each present at and lead a minimum of two half-day seminars for PCG prescribing advisors and practice-based pharmacists on the appropriate use of antimicrobials and use of the audit materials.

8. Prescription Analysis and Cost (PACT) data together with a Prescribing Toolkit have been key instruments for monitoring prescribing in primary care for several years. An electronic version—EPACT (Electronic Prescribing Analysis and Cost)—is already available to all HAs. Around 80 per cent of PCGs now have access to EPACT via the NHSnet-EPACT.net. The target for GP practice connection to NHSnet is 95 per cent by March 2001, and 100 per cent by 2002. EPACT.net will be available for Primary Care Trusts (PCTs) by late September 2000. By November 2000 EPACT will be fully realigned to match organisational changes thus enabling the NHS Executive, both nationally and regionally, to improve monitoring of PCT and PCG performance on prescribing, including antimicrobials.

9. In Wales, PACT data has been correlated with antimicrobial susceptibility data, down to individual practice level. The project group has extended this work to establish relationships also with social deprivation data. The results of these types of study will be used as evidence to inform and educate GP prescribing. Further work will be undertaken to reproduce these studies in other parts of the UK.

10. The Public Health Laboratory Service (PHLS) together with the IDSG's Clinical Prescribing Sub-Group, has developed and distributed a template intended to be used as a basis for the development of local evidence-based antimicrobial prescribing policies in primary care. It is available on the PHLS website. It will be reviewed in the light of comments received and updated as the evidence-base evolves.



*1 March 2001]**[Continued]*

11. PHLS has organised a series of workshops with local healthcare professionals on the use of antibiotics in primary care. A paper describing the positive effects of these workshops in promoting more rational and cost-effective prescribing has been submitted for publication.

12. In Scotland, MEL(1999)46, copy at Annex B (*not printed*), which set out action for the NHS in Scotland in response to the Committee's Report, also asked prescribing advisors to support the NHS Information Strategy. Progress will be evaluated locally.

13. At the end of August, Pharmacy Services Division (PSD), within the Scottish Executive, launched a new system for pricing prescriptions—Data Capture Validating and Processing (DCVP). This is linked to a new Business Information System which will allow greater flexibility and a more refined analysis of prescribing information.

14. Following successful evaluation of a practice-based system for electronically feeding back prescribing information to GPs, an outline business case will shortly be finalised to look at the feasibility of rolling this out across Scotland. This will link in with the existing Prescribing Information System in Scotland (PRISMS) system available to Health Boards and PCTs.

15. In Scotland, Local Health Care Co-operatives (LHCCs) have been very successful in involving the community pharmacists who actively work with practices. This has helped them to review prescribing, including the use of antibiotics. Three pilots on providing "Over The Counter" medicines directly by community pharmacists to patients free of charge if exempt from prescription charges are currently ongoing.

16. Scotland already monitors at National, Health Board and Trust level, the use of antibiotics as measured by Defined Daily Doses (DDDs). This is one of a number of prescribing indicators in use and indicates a general decline in the overall use of antibiotics. With the advent of new technology, it will be easier to routinely use DDDs at Health Board, PCT, LHCCs and practice level.

17. A subgroup of the Scottish Advisory Group on Infection (SAGI) will be looking at prescribing data and the means of monitoring prescribing practice in primary care and co-ordinating this with antimicrobial surveillance data. A further subgroup of the SAGI is currently developing plans for a system to monitor antimicrobial use in hospitals and patient-specific prescribing information. This will be co-ordinated with the antimicrobial resistance surveillance system being planned for Scotland.

#### HOUSE OF LORDS' RECOMMENDATION: IMPROVED MICROBIOLOGICAL DIAGNOSIS

11.8 Industry and the grant-giving bodies should give priority to work on rapid affordable systems for diagnosis and susceptibility testing; where promising developments emerge, they should be quick to move them towards the market.

#### *Summary of Government Response in December 1998*

- Action here is mainly for industry and grant giving bodies and so the Government made no specific commitments. The Government recognises the need for coordination across laboratory and clinical services so that the introduction of new near-patient tests is achieved with a high level of quality assurance and without detriment to overall surveillance.

#### PROGRESS SINCE GOVERNMENT RESPONSE

18. CAMR, a Special Health Authority, is funded by DH to undertake a range of microbiological research projects, and to provide specialist services for the diagnosis of certain communicable diseases. Whilst the work is not specifically aimed at antibiotic resistance, some of the research will improve our understanding of the pathogenesis of microorganisms, such as *Mycobacterium tuberculosis*. This will lead to a greater understanding of how these organisms cause infections and to the development of improved treatment and prevention strategies.

19. The Scottish Executive Health Department, through the National Services Division, has recently funded a scientist to undertake developmental work at the Scottish Mycobacteria Reference Laboratory in the areas of rapid diagnosis and detection of drug resistance in cases of tuberculosis.

20. The PHLS recognises the need to assess near patient tests in the clinical setting as they become available.



*1 March 2001]**[Continued]***HOUSE OF LORDS' RECOMMENDATION: USE OF DRUG LICENSING TO ENCOURAGE PRUDENT USE**

11.9 The Medicines Control Agency should consider whether the drug licensing system could be used more effectively to encourage prudent use in the interest of public health.

*Summary of Government Response in December 1998*

- Government is seeking, through the Medicine Control Agency's (MCA) representation at the relevant EU scientific committee, a revision of the European-wide guidance given to the pharmaceutical industry.
- MCA will seek to ensure that documents from manufacturers about antimicrobial products are up-to-date with best current evidence-based practice.
- MCA will consider robust data on the epidemiology of resistance, should it become available, when marketing authorisations are considered for renewal and will seek to improve the consistency of information provided for similar groups of antimicrobials.

**PROGRESS SINCE GOVERNMENT RESPONSE**

21. The MCA has formed an internal working group which continues to advise how Summaries of Product Characteristics can be updated to facilitate more prudent use of antimicrobial agents. This review is taking account of similar initiatives being undertaken in the Efficacy Working Party of the Committee for Proprietary Medicinal Products (CPMP). The large number of antimicrobial agents and associated marketing authorisations add to the complexity of the review. The MCA has convened an Expert Advisory Group to provide advice on the process and on technical aspects. This advice will be used to inform the UK position with respect to European developments.

22. The MCA acted as Co-Rapporteur in the development of guidance to the pharmaceutical industry regarding points to consider on pharmacodynamics and pharmacokinetics in the development of antibacterial agents. The guidance deals with the scientific basis for the choice of dose regimens to be studied in clinical trials. This has now been adopted by the CPMP.

**HOUSE OF LORDS' RECOMMENDATION: INTERNATIONAL**

11.10 We commend the work of the WHO, through its Division of Emerging and other Communicable Diseases Surveillance and Control, to equip professionals and regulators in the developing world to respond appropriately to pharmaceutical promotions.

*Summary of Government Response in December 1998*

- The Government, through DH, will continue to work closely with the Division of Emerging and Other Communicable Diseases Surveillance and Control.

**PROGRESS SINCE GOVERNMENT RESPONSE**

23. Following reorganisation of the WHO, Antimicrobial Resistance is now a programme within the Communicable Diseases "Cluster". The WHO chose antimicrobial resistance as the theme for its Report on Infectious Disease 2000 which was published in June 2000, and launched at a Press Conference in London. WHO has now developed a draft overall global strategy which has recently been made available on the WHO website. A UK expert has been closely involved in this process.

**HOUSE OF LORDS' RECOMMENDATION: OVER THE COUNTER ANTIMICROBIALS**

11.11 The Government and the ABPI must maintain their firm stand against over-the-counter antibiotics. The Government should engage in active diplomacy to ensure that, should the issue be raised in the EU Council of Ministers, their position is understood and their allies are in place; and, in the long term, to induce those Member States which are currently more relaxed about over-the-counter antibiotics to introduce more controls.

*Summary of Government Response in December 1998*

- MCA will review the legal status of antimalarial, antiviral and antifungal agents available without prescription taking into account the best interests of the patient and the possibility that they might contribute to the development of resistance.



*1 March 2001]**[Continued]*

- Government will continue to strongly promote adherence to "prescription only" status for all antibacterials within the EC and elsewhere.
- Power to prohibit, restrict or make subject to particular requirements the availability of certain medical services will be enacted into UK law by the end of 1999.
- Government will continue to closely monitor the availability of dressings containing antibiotics.

#### PROGRESS SINCE GOVERNMENT RESPONSE

24. MCA has undertaken an assessment of the single anti-viral drug and all antimalarial and antifungal drugs that are available in the UK without prescription, focussing on the implications of resistance resulting from wider availability. The Committee on Safety of Medicines (CSM) has advised that there is insufficient evidence to require restriction of these products to prescription only status. It is the Committee's view that a national surveillance programme should be set up to monitor trends in resistance to fluconazole.

25. The MCA remains vigilant in not permitting other antimicrobials to be made available without prescription, with the sole exception of one antifungal cream (terbinafine) where the Advisory Committee confirmed that there was a very low risk of antifungal resistance developing as a result.

26. At EU level, the UK will continue to maintain its stance during development of a proposed new EU Recommendation on prudent use of antimicrobials in humans.

27. New concern has been raised about dressings containing bacteriostatic and bactericidal compounds. This was brought before the IDSG's September meeting. A review of the current situation is being commissioned after which decisions on any necessary action will be taken. As far as we are aware, no dressings containing antibiotics are regulated as medical devices (ie potentially available over the counter) on the market in the UK. The situation is, however, being continuously monitored through liaison with industry and professional devices associations and the British Pharmaceutical Association. Should the current situation change, and a public health risk be identified, legal measures may need to be taken for which certain powers already exist.

#### HOUSE OF LORDS' RECOMMENDATION: COMMUNICATION SKILLS FOR DOCTORS

11.12 The increased education for doctors should include education in communication skills (ie how to explain the reasons for refusing a prescription) and other ways to avoid prescribing on demand (eg delayed-action prescriptions).

#### *Summary of Government Response in December 1998*

- PRODIGY Release 1 will be available to any GP.
- Telephone advice for the public through NHS Direct will be developed and expanded.
- Further research, particularly on implementation, may be necessary.
- R&D programme being taken forward by a multi-disciplinary co-ordinating group building on "From compliance to concordance: Achieving shared goals in medicine taking".

#### PROGRESS SINCE GOVERNMENT RESPONSE

28. PRODIGY provides computer-assisted support to GPs in the management of a full range of conditions presenting in primary care. It can be used to support the patient's understanding of their condition and appropriate treatment. Doctor and patient can share the advice screens PRODIGY has to offer during the consultation and there is an extensive range of patient information, which can be printed off at any time during the consultation and taken away from the surgery by the patient. Around 85 per cent of GPs currently have access to PRODIGY.

29. The NPC change management resource and programme, referred to earlier in this memorandum (paragraph 6), contains material on GPs' understanding of patients' expectations, and on consultation skills, improving patients' understanding, involving patients in decision-making, and how to say "no" when an antimicrobial is inappropriate.

30. A "Non-prescription" pad formed part of the public education material DH made available to GPs and A&E Departments as part of last Autumn's publicity campaign. This material was provided to help GPs explain their reasons for not giving a prescription where one was not considered appropriate, but meant that patients came away from the consultation with information and advice. Interviews with patients did not form part of the initial campaign evaluation but there was some informal evaluation (see paragraph 38). The material will be available again this winter and this is an area we plan to follow up. Around 8,000 of these pads were distributed and they remain available for re-order.



*1 March 2001]**[Continued]*

31. The roll out of the New Generation GP Administration System in Scotland (GPASS) will be complete by the end of this year covering in excess of 85 per cent of the computerised practices in Scotland. This incorporates a new drug dictionary with enhanced information for prescribers. New GPASS incorporates the facility to provide customised information to patients in lieu of a prescription.

32. New GPASS also provides practices with the facility to create care and management screens for any condition. There are plans to provide nationally agreed screens for specific conditions through the Scottish Programme for Improving Clinical Effectiveness in Primary Care (SPICE-PC) and Scottish Clinical Information Management and General Practice (SCIMP).

#### HOUSE OF LORDS' RECOMMENDATION: PUBLIC EDUCATION

11.13 In many cases doctors prescribe unnecessarily under pressure—or perceived pressure—from their patients, and under pressure of time. There is an urgent need for public health education in this area. . . we urge the Government and Health Authorities to do more. In particular, we recommend a campaign targeted at mothers of young children.

11.14 Government and Health Authorities should present to the public the evidence that unnecessary antibiotics not only have public health consequences, but also increase the risk to the individual patient that any subsequent infection will involve a more resistant strain.

#### *Summary of Government Response in December 1998*

- DH plans a public information campaign and a multi-professional educational campaign, with a probable launch in Spring 1999.
- Shared patient information delivered by computer-based decision support systems are being developed and assessed.
- The Government will consider opportunities to use "Healthy Schools Initiative" to promote understanding among whole school community.

#### PROGRESS SINCE GOVERNMENT RESPONSE

33. The first phase of the Government's national public education campaign on antimicrobial resistance, with a budget of £1.3 million, was launched in October last year. The aim of the campaign was to increase public awareness of the problem of antibiotic resistance and what they can do to help contain it. The campaign concentrated on two areas:

- no prescribing of antimicrobials for simple coughs and colds;
- no prescribing of antibiotics for viral sore throats.

These messages are being reiterated in DH's overall publicity campaign for this coming winter.

34. The campaign on antibiotic resistance aims to support health professionals in their management of patients with acute upper respiratory tract infections by reducing patients' expectations for an antibiotic prescription from their GP. The campaign also encourages patients to seek advice from alternative sources such as community pharmacists, and the new telephone advice service NHS Direct on safe and appropriate symptomatic relief. NHS Direct "on-line" can be accessed for additional information.

35. The main campaign, which featured a cartoon antibiotic character "Andy Biotic", included national press and professional and other magazine advertising; a media relations strategy targeting key audiences, such as mothers with young children and older people; posters across supermarket sites and pharmacy windows; and postcards in cinemas and health clubs.

36. For GPs and pharmacists a pack was provided containing:

- a copy of an information leaflet for patients, for use in surgeries, community pharmacies or hospitals;
- a copy of the campaign poster which was aimed at patients.

37. For GPs and hospitals (aimed particularly at Accident and Emergency Departments) there was also a "Non-prescription" pad of tear-off sheets, for those doctors who wished to use it, to hand to patients during consultations, especially those in which a prescription for an antibiotic may have been expected but was not indicated (see paragraph 30).

38. There is some evidence that attitudes and expectations have changed following the campaign. For example, interviews with a sample of 1,600 people showed that after the campaign 27 per cent of mothers with children aged 4 or under would expect antibiotics for their child if they had a bad cough. This compares with 40 per cent before the campaign. Further phases of the campaign are planned over the next two years. Work will shortly begin on the development of the next phase.



*1 March 2001]**[Continued]*

39. Information on antimicrobial resistance for schools has been developed in association with DH and the PHLS as part of the "Wired for Health" project ([www.wiredforhealth.gov.uk](http://www.wiredforhealth.gov.uk)).

40. Northern Ireland and Wales distributed DH's campaign material in Autumn 1999. In Scotland, publicity material was issued to the Health Service in December 1999. In addition, the Scottish Executive Strategic Group on Antimicrobial Resistance has recently formed a Communications sub group to consider the issue of how to communicate its message to the general population. This group is due to have its first meeting in October 2000.

#### HOUSE OF LORDS' RECOMMENDATION: EVIDENCE BASED PRESCRIBING

11.15 The NHS should work with the relevant professional bodies to see that courses of antibiotics are defined according to the best available current information.

#### *Summary of Government Response in December 1998*

- Government intends to fund further research on dosing/duration and will consider further clinical guidelines and guidance on monitoring.
- Issues of dose and duration to be considered during PRODIGY/development.
- NICE will be charged with producing robust clinical guidance.
- Scotland will establish a Scottish Health Technology Assessment Centre.

#### PROGRESS SINCE GOVERNMENT RESPONSE

41. The IDSG Research Sub-Group (referred to in more detail in paragraph 108) has identified the definition of optimum dosages and schedules for antimicrobials as a key area for further research and will be making its recommendations later this year. In the meantime, best available evidence is being assembled and made available in a number of ways.

42. The PHLS guidance template for use in primary care and referred to in paragraph 9 of this memorandum incorporates the best evidence available on dosage, scheduling and duration of treatment. Issues of dose and duration of antimicrobial use are also carefully considered as part of the development of PRODIGY guidance (which is now under the umbrella of the National Institute for Clinical Excellence) (paragraph 28). Available evidence is reviewed and the recommendations are developed in co-operation with PHLS and other experts.

43. Communicable diseases is one of the first "branch libraries" being formed as part of the National Electronic Library for Health (NELH), a one-stop source of information on all aspects of communicable disease control. The Library will gradually collect and appraise existing treatment guidelines and identify gaps.

44. Scottish clinical effectiveness work undertaken by the Scottish Intercollegiate Guidelines Network (SIGN) supports good antibiotic prescribing practice. A guideline on "Management of Sore Throat and Indications for Tonsillectomy" was issued in January 1999. A further guideline on "Antibiotic Prophylaxis in Elective Surgery" will be issued shortly. The Health Technology Board for Scotland was established as a special Health Board on 1 April 2000. Priorities for its work will be established in partnership with NICE with the aim of providing a single source of advice on the clinical and cost-effectiveness of treatments, including drugs.

#### HOUSE OF LORDS' RECOMMENDATION: RAPID DIAGNOSTIC TESTS FOR TB

11.16 While the new guidelines from the Department of Health, recommending more rapid diagnostic tests and more stringent infection control in cases of suspected MDR-TB, are welcome, the Department must find the necessary resources.

#### *Summary of Government Response in December 1998*

- Costs of following good practice need to be viewed against savings from reducing number and length of hospital admissions, preventing further drug resistances and avoiding outbreaks.



*1 March 2001]**[Continued]*

## PROGRESS SINCE GOVERNMENT RESPONSE

45. More rapid diagnostic and susceptibility tests for tuberculosis are now well established in routine clinical practice and major treatment centres have improved their isolation facilities for infectious patients, including the provision of negative pressure rooms. There is increasing acceptance that the cost of treating MDR-TB, once developed, far exceeds the cost of prevention.

## HOUSE OF LORDS' RECOMMENDATION: IT REQUIREMENTS FOR MONITORING HOSPITAL PRESCRIBING

11.17 Those responsible for the NHS Information Technology Strategy should consider the contrast between the excellent data on GP prescribing, captured by both the Prescription Pricing Authorities and GPs themselves, and the lack of data on antimicrobial use in hospitals. All hospitals should install computer systems for patient-specific prescribing information at ward level.

*Summary of Government Response in December 1998*

- Health information strategy "Information for Health—An information strategy for the modern NHS 1998–2005" will ensure that relevant issues are addressed in a systematic way. 35 per cent NHS Trusts to have installed electronic patient record systems by 2002, all by 2005.
- Welsh IMT strategy to be published in the next few months.
- Compatibility of record keeping will be pursued.
- Information and Communications Technologies research initiative being established.
- Research on decision support systems, proposals invited September 1998.

## PROGRESS SINCE GOVERNMENT RESPONSE

46. Installation of patient-specific prescribing information at ward level requires the development of patient-based systems. Such systems form part of the electronic patient record level 3 (EPR-3) as described in the information and IT strategy for the NHS "Information for Health". The local programme for implementation of EPR-3 is specified in the "Local Implementation Strategies"; as stated in the summary of this section 35 per cent of all Trusts expected to have EPR-3 by 2002 and 100 per cent by 2005. Definition of the scope of an electronic prescribing system as part of an EPR-3 will be published by the middle of December 2000, and will be used to inform procurements. The electronic patient record underpins principle 5 of the NHS National Plan which states that "the NHS will work continuously to improve quality services and to minimise errors".

47. In the interim, DH is exploring alternative sources of data on the use of antimicrobials in hospitals in order to obtain more detailed information. Exploratory discussions are underway with a commercial supplier who captures data from the vast majority of hospital trusts in England.

48. The Welsh IMT strategy "Better Information Better Health" was published March 1999. The Health of Wales Information Service (HOWIS) has been developing along the lines detailed in the Welsh IMT strategy document, in order to increase access to data. HOWIS will be formally launched later in the year, but much of the information is currently available (at least to the intranet users in Wales on Digital All Wales Network (DAWN)—the Welsh equivalent of NHSnet).

## PRUDENT USE IN ANIMALS

## HOUSE OF LORDS' RECOMMENDATION: THREAT FROM INDEPENDENT USE IN ANIMALS

11.18 There is a continuing threat to human health from imprudent use of antibiotics in animals.

*Summary of Government Response in December 1998*

- The Advisory Committee on Microbiological Safety of Food working group is expected to report before the end of year. The Committee will offer advice to the Government on a range of issues concerning the responsible use of antimicrobial agents as veterinary medicines and growth promoters.



*1 March 2001]**[Continued]***PROGRESS SINCE GOVERNMENT RESPONSE**

49. The Advisory Committee on the Microbiological Safety of Food (ACMSF) published its report on antibiotic resistance in the food chain on 16 August 1999. The Government's response, published on 24 March 2000, accepted the ACMSF's recommendations and an action plan has been drawn up to ensure that commitments given in the response are fulfilled.

50. Further codes of practice on responsible use of antimicrobials in animals have been drawn up by the British Veterinary Association (BVA) and the Responsible Use of Medicines in Agriculture (RUMA) Alliance. The Government strongly supports these industry-led initiatives.

51. A Public Health Laboratory Service/Veterinary Laboratory Agency (PHLS/VLA) Memorandum of Understanding was signed on 29 February 2000 to provide a basis for closer collaboration. A close working relationship has been developed with the aim of co-ordinating the surveillance of antimicrobial resistance in pathogens of human and animal origin.

**HOUSE OF LORDS' RECOMMENDATION: ANTIBIOTIC GROWTH PROMOTERS**

11.20 Antibiotic growth promoters such as virginiamycin, which belong to classes of antimicrobial agent used (or proposed to be used) in man and are therefore most likely to contribute to resistance in human medicine, should be phased out, preferably by voluntary agreement between the professions and industries concerned, but by legislation if necessary.

*Summary of Government Response in December 1998*

- The Government will work through EU regulatory procedures to secure the withdrawal of antimicrobial growth promoters.

**PROGRESS SINCE GOVERNMENT RESPONSE**

52. The Government supported an EU ban on four antimicrobial growth promoters (virginiamycin, bacitracin zinc, spiramycin and tylosin phosphate) which entered into force on 1 July 1999. The approval of remaining growth promoters is under close review by the European Commission. The Government supported a Council Resolution of 8 June 1999 (1999/X195.01) which calls on member states *inter alia* to co-operate to promote health-oriented animal production systems in order to reduce reliance on growth promoters and to carry out research. The Government is funding research in this area.

**HOUSE OF LORDS' RECOMMENDATION: CODE OF PRACTICE FOR USE OF FLUOROQUINOLONES (AND OTHER ANTIMICROBIALS) IN ANIMALS**

11.21 The veterinary profession must address the problem of over-use of fluoroquinolones and other potent agents of importance to human medicine by introducing rapidly a Code of Practice on "when" and "how" such compounds should be prescribed.

*Summary of Government Response in December 1998*

- Government will encourage development of guidelines for each species.
- Government has asked Veterinary Medicines Directorate (VMD) to proceed with a review of marketing authorisations for antimicrobial veterinary medicines.
- Government has asked VMD to implement Veterinary Products Committee's recommendations on the development of optimised dosing rates and strategies.

**PROGRESS SINCE GOVERNMENT RESPONSE**

53. The RUMA Alliance has produced codes of practice which emphasise the need for careful use of fluoroquinolones in the treatment of pigs and poultry (June 1999), cattle and sheep (June 2000). The guidelines promote responsible use within a health plan for the animals in question. The EU Veterinary Products Committee has set up a working group to oversee the development of guidelines on optimised dosing rates and strategies to be taken forward throughout the EU. Priority is being given to fluoroquinolones.



*1 March 2001]**[Continued]*

## HOUSE OF LORDS' RECOMMENDATION: SURVEILLANCE IN ANIMALS

11.22 MAFF and the new Food Standards Agency should consider the need to improve surveillance of resistance patterns in animals.

*Summary of Government Response in December 1998*

- MAFF is planning to start surveillance of foodborne pathogens.
- MAFF & DH will co-operate in co-ordinating surveillance programmes, forming a cross Departmental Committee.
- Bids to conduct a survey to establish a baseline against which trends in use of antibiotics can be measured are being considered by MAFF.

## PROGRESS SINCE GOVERNMENT RESPONSE

54. Poultry production has been surveyed for resistant *Enterococcus faecium* as an indicator of resistance to the growth promoters avoparcin, virginiamycin, tylosin, avilamycin and bacitracin. A draft report on the survey including methodology and results is in preparation. A further stage of the survey, investigating resistance to the same group of antimicrobials in *Salmonella*, *Campylobacter* and *Escherichia coli*, is about to begin.

55. Healthy cattle, sheep and pigs have been surveyed for *Salmonella*, *Campylobacter* and *E. coli* at slaughter. Some of these isolates have been tested for resistance against a range of antimicrobial compounds. The results of these surveys will be presented at an open meeting in London in December.

56. The VMD has published sales data on antimicrobial compounds for veterinary use in the period 1993–98. The report shows that there was a significant rise in the sale of antimicrobials from 1993–1996, followed by a fall in 1997 and 1998 to pre-1994 levels. Over the period 1993–1998 inclusive, antimicrobials sales in food animals accounted for 95 per cent (555 tonnes) of the mean annual sales of 584 tonnes. Just under half (47 per cent) of the total sales of antimicrobials for use in food animals is accounted for by tetracyclines whereas fluoroquinolones account for only about 1 tonne (0.2 per cent). The antimicrobial sales figures for 1999 are currently being collated.

57. Between 83 per cent—90 per cent of the antimicrobials sold for use in food animals during the six-year period were for therapeutic purposes, with growth promoters accounting for 10–17 per cent. About 80 per cent of antimicrobial products are administered via feedstuffs and most is used for pigs and poultry. Further work is needed to determine the species breakdown more accurately and a survey commissioned on the use of antimicrobials is close to completion.

58. In addition to the IDSG, MAFF has established its own Antimicrobial Resistance Co-ordination Group (MARC). Information from both groups is fed into the Chief Veterinary Officer's (CVO's) Surveillance Group on Diseases and Infections in Animals, and the Chief Medical Officer's (CMO's) National Zoonoses Group. DH and the PHLS are represented on each of these groups, for the co-ordination of human and veterinary aspects of antimicrobial surveillance.

59. Veterinary representation from the Scottish Centre for Infection and Environmental Health (SCIEH) and Scottish Agricultural College (SAC) on a sub group of the Scottish Advisory Group on Infection, also ensures co-ordination of surveillance systems in people and animals.

## HOUSE OF LORDS' RECOMMENDATION: MULTI-DISCIPLINARY ADVISORY COMMITTEE

11.23 Departmental and Agency boundaries must not be allowed to prevent the Government from getting a grip on the whole of the issue of resistance, in the interests of public health. A single multi-disciplinary Government committee to oversee all aspects of antibiotic use, as recommended by the Swann report, should now be established.

*Summary of Government Response in December 1998*

- A multidisciplinary Interdepartmental Steering Group has already been established to develop the wider government strategy and to steer and co-ordinate activity in this area.
- An independent expert advisory committee to be established with terms of reference and membership to be announced shortly.



*1 March 2001]**[Continued]*

## PROGRESS SINCE GOVERNMENT RESPONSE

60. The IDSG has continued to meet regularly to co-ordinate and monitor ongoing action on the Government's strategy with expert advice provided as appropriate through its various subgroups. Work on the process of setting up the Expert Advisory Committee on Antimicrobial Resistance as a tier 1 Non-Departmental Public Body is near completion and it is hoped that an announcement about its membership will be made before the end of the year.

## HOUSE OF LORDS' RECOMMENDATION: WORMS AND SCAB IN SHEEP

11.24 MAFF should consider the evidence of Dr Coles which suggests that resistance in worms and scab pose a threat to the British sheep farming industry.

## PROGRESS SINCE GOVERNMENT RESPONSE

61. As stated in the Government's response to the Committee's Report the Agriculture Departments regularly consider all needs for research and surveillance funding. They are aware of the views of Dr Coles and have invited him to develop his views on surveillance and research needs.

## INFECTION CONTROL

## HOUSE OF LORDS' RECOMMENDATION: PRIORITY FOR INFECTION CONTROL

11.26 Purchasers and commissioning agencies for hospital services should put infection control and basic hygiene where they belong, at the heart of good hospital management and practice, and should redirect resources accordingly; such a policy will pay for itself quite quickly. The NHS Executive should assure themselves that every NHS hospital is covered by a properly trained infection control team, as recommended in the Cooke Report.

*Summary of Government Response in December 1998*

- Existing National Priorities Guidance reminds the NHS of its obligation in the areas of hospital infection and antibiotic resistance. Progress will be monitored through the performance management process.
- DH is about to issue fresh guidance on hand washing to the NHS.
- NHS Executive will use findings of the National Audit Office study on hospital acquired infection and the Regional Epidemiologists examination of hospital infection control arrangements in acute hospital Trusts to ensure that the NHS makes changes where necessary, through performance management arrangements.
- Government will introduce a new requirement of clinical governance.
- Evidence-based multi-professional guidelines on principles for preventing hospital acquired infections will be produced and completed in March 2000.

## PROGRESS SINCE GOVERNMENT RESPONSE

*Infection Control*

62. A wide range of action is underway to ensure that the NHS has more robust and effective infection control arrangements. The current NHS National Priorities Guidance for 2000-01-2002-03 makes it clear that the NHS must take action to strengthen services to prevent and control infection in hospitals.

63. Following the Committee's report, action on infection control for the NHS, as agreed by the NHS Executive Board, was issued to the Service in March 1999 under HSC 1999/049 (copy at Annex B—*not printed*). This included fresh guidance on hand washing produced by a group of representatives from DH, the PHLS and a number of professional organisations.

64. In November 1999, an infection control standard was one of 18 new Controls Assurance Standards issued to the NHS. NHS Trusts and Health Authorities were required to complete a self-assessment against the 15 key criteria in the infection control standard, and report to Regional Offices by 31 July 2000 with a priorities action plan agreed by the Trust Board. Reports on these base line assessments are currently being analysed centrally to ensure that any identified weaknesses are addressed.



*1 March 2001]**[Continued]*

65. In the light of the results of the Regional Epidemiologists view of infection control arrangements, and the National Audit Office report on "The Management and Control of Hospital Acquired Infection in Acute NHS Trusts in England", an action plan and timetable for the NHS was issued by DH in February 2000 with HSC 2000/02, copy at Annex B (*not printed*). This plan includes the need to secure appropriate arrangements for the control of hospital infection and a safe clinical environment. Alongside this, individual Trusts have been provided with information on their position relative to other Trusts. The Circular sets out a programme of action for the NHS to:

- strengthen prevention and control of infection in hospital;
- secure appropriate health care services for patients with infection;
- improve surveillance of hospital infection;
- monitor and optimise antimicrobial prescribing.

It requires the following action:

- HAs, PCGs and NHS Trusts should work together to implement the action programme, using the infection control standards in the Controls Assurance framework (see paragraph 62);
- NHS Trust Boards should formally review arrangements for the control of infection within hospitals for which they are responsible at least annually;
- Regional Directors of Public Health, working with Regional Directors of Performance Management, will ensure that the NHS has robust infection control arrangements (including the implementation of clinical governance arrangements and achievement of the Controls Assurance Standards) in accordance with the timetable set out in the Circular.

66. Progress against milestones set out in the action plan is currently being reviewed. Key progress to date includes:

- all acute Trusts now have an appropriately constituted Infection Control Team (ICT);
- each ICT has an infection control nurse (ICN);
- population-based surveillance of antimicrobial susceptibility is being implemented in all English regions over the next two years.
- CHI will include assessment of systems Trusts have in place for managing and controlling infection.

67. The New NHS Plan, published in July 2000, set out new investment, and the action to be taken to ensure that cleanliness standards in all hospitals are raised and maintained. This is over and above an amount of £30 million already allocated to NHS Trusts in England to bring tangible improvements in the current financial year. An England-wide campaign to clean and smarten hospitals is now well underway. Patient Environment Action Teams, including ICNs, NHS Estates and domestic managers, are visiting hospitals to make an initial assessment of standards. Every NHS Trust has already been visited. Unannounced follow-up visits will also take place.

68. National standards for cleanliness will form part of the NHS Performance Assessment Framework. Every NHS Trust now has a nominated Board member to take personal responsibility for monitoring hospital cleanliness.

#### CLINICAL GOVERNANCE

69. Clinical governance guidance was published on 16 March 1999. By the end of October 1999, Regional Offices were required to have submitted summary reports on the baseline assessments, undertaken by the NHS in their areas in line with the requirements set out in the guidance. These reports have now been received, and form the basis of clinical governance development plans, in which organisations are expected to address issues such as: closing gaps in present performance; developing the necessary infrastructure; and identifying and responding to staff and board development needs.

70. The majority of organisations have now completed their clinical governance development plans. Each plan is unique to the organisation and identifies specific areas of action within a framework agreed by each region. Regional Offices have scrutinised and agreed these plans. All NHS organisations are to publish an annual clinical governance report. The first clinical governance reports are now appearing within Trusts annual board reports for 1999–2000.



*1 March 2001]**[Continued]**Guidelines*

71. The multi-professional guidelines on preventing HAI have now been completed. They have been developed using rigorous methodologies and with guidance from a project advisory team, which included members with practical experience, and experts in the field. Formal consultation with the Royal Colleges and Specialist organisations is in progress. The guidelines will be published in a quality professional journal early in 2001.

72. In April 2000, Department of Health and Social Services & PS Northern Ireland issued a joint professional letter, HSS(MD)9/2000, copy at Annex B (*not printed*), to HSS Boards and Trusts setting out a programme of action designed to strengthen standards of hygiene and general cleanliness in hospitals with assignments to be met at the latest by April 2001. It complemented circular HSS(MD)8/99, copy at Annex B (*not printed*), issued in June 1999 which took account of the House of Lords report in relation to strengthening arrangements for control of communicable disease including infection control.

73. The Scottish Executive Health Department's letter MEL(1999)46, copy at Annex B (*not printed*), on "*Resistance to Antibiotics and Other Microbial Agents in 1999*", included as an Annex a document developed by a group of professional organisations, which highlighted the need for improved practice in the area of handwashing in Trusts.

## HOUSE OF LORDS' RECOMMENDATION: MRSA

11.27 The NHS should set itself targets for controlling MRSA in hospitals, and publish its achievements.

*Summary of Government Response in December 1998*

- Government agrees that performance indicators/targets on hospital infection control, including MRSA, need to be introduced.
- Government will look at ways of targeting resources, facilities, activities and policies at improving overall infection control.
- DH looking to improve systems of MRSA surveillance.

## PROGRESS SINCE GOVERNMENT RESPONSE

74. In order to set targets there needs to be a firm information base from which to start with consistent and comparable sampling, reporting and data collection across the country. This does not currently exist. Without this there is no measure against which to judge the meeting of targets. The DH held a seminar in July 1998 to review possible standards and targets for MRSA and the work involved in their development. The seminar concluded that:

- MRSA must be seen within the overall context of HAI;
- setting targets requires agreed surveillance protocols for hospitals and the community;
- in the meantime process rather than outcome targets would be more appropriate.

Since then considerable development work has been undertaken to agree protocols.

75. DH has now convened a Healthcare Associated Infection Surveillance Steering Group, chaired by a Trust Chief Executive, to provide strategic advice to DH on NHS surveillance needs at local, regional and national level. The Group will consider how best to develop a strategic approach, including the development and implementation of the mechanism needed to deliver national surveillance reporting by all Trusts, by 1 April 2001 if possible. From this improved surveillance activity, targets can be developed for HAI, including MRSA.

76. In Scotland, the area of MRSA is also recognised as a very important one. It is anticipated that the question of targets and surveillance will be considered by the Hospital Acquired Infection and Antimicrobial Resistance Surveillance Subgroup of the Scottish Advisory Group on Infection which is currently sitting.

77. Wales had a surveillance scheme for MRSA for the past four years. This scheme records incidents of infection occurring across the Welsh Trusts. In addition, two point-prevalence studies have been conducted in 1997 and 1999. These studies establish the difficulties that are likely to arise when defining meaningful targets.

## HOUSE OF LORDS' RECOMMENDATION: STANDARDS FOR COMMUNITY INFECTION CONTROL

11.28 The NHS should draw up national standards and guidelines for community infection control management, along the lines of the Cooke Report for hospitals. These should include a requirement that every district health authority should have at least one community infection control nurse.



*1 March 2001]**[Continued]**Summary of Government Response in December 1998*

- DH will lead in developing national guidelines and standards for community infection control management.
- Government will support a review (commencing in 1999) of the Community Infection Control Nurses as members of the Health Authority's communicable disease control team.
- Final report of Chief Medical Officer's Project to Strengthen the Public Health Function to be published in 1999.

**PROGRESS SINCE GOVERNMENT RESPONSE**

78. A contract has been awarded for the development of evidence based guidelines for the prevention and control of infection in primary and community care settings. These guidelines which will form part of NICE's work programme, should be completed during 2002.

79. The review of the role and responsibility of community infection control nurses has commenced, and should be completed during 2002.

80. A study, on behalf of Regional Directors of Public Health, to examine infection control arrangements in community settings in England will begin later this year. The contract could not be placed earlier because funding is from the Public Health Development Fund and we were awaiting final decisions from Ministers about spending plans. This was given recently. We anticipate that it will largely be completed by the end of the next calendar year but, in view of the delay in starting, it could be the end of the next financial year (March 2002).

81. The report of the CMO's Project to Strengthen the Public Health function is nearing completion and is expected to be published this Autumn.

**HOUSE OF LORDS' RECOMMENDATION: PUBLIC HEALTH LAW**

11.29 Those responsible for the review of the Public Health (Control of Disease) Act 1984 should consider Dr Mayon-White's evidence as to shortcomings of the provisions for compulsory medical examination and detention in hospital, and the case for a more humane regime, and for extending the legislation to provide also for supervised treatment at home.

*Summary of Government Response in December 1998*

- The Government, in its review of the Public Health (Control of Disease) Act 1984, will take forward the issue of regimes for compulsory medical examination and detention in hospital being humane.

**PROGRESS SINCE GOVERNMENT RESPONSE**

82. This recommendation was noted as applying particularly to those patients with tuberculosis who were not voluntarily adhering to their treatment. A seminar hosted by the PHLS, with DH input, considered recent examples and lessons to be learned from them. It recognised both the legal and practical difficulties, but also noted that legal sanctions were not always the most appropriate way to gain patients' confidence and co-operation. A report, containing examples of successful practice, will be disseminated in due course. The issue of human rights in relation to communicable disease legislation more generally is also being considered by the Department as part of its work on implementation of the Human Rights Act in October 2000.

83. The Scottish Executive Health Department is aware that there are concerns about the Public Health (Scotland) Act 1897 and human rights and intend to introduce a new Public Health Act during 2002-03, or sooner. This will deal with the issue of compulsory detention and human rights.

**HOUSE OF LORDS' RECOMMENDATION: PHLS FUNDING**

11.32 The Department of Health must reconsider the cuts in the Departmental subvention for the PHLS.



*1 March 2001]**[Continued]**Summary of Government Response in December 1998*

- DH will discuss the longer term funding of the PHLS. In the meantime £2.3 million additional resources will be made available to the PHLS in 1999–2000.

## PROGRESS SINCE GOVERNMENT RESPONSE

95. DH provided additional funding of £2.3 million for the PHLS for 1999–2000.

## HOUSE OF LORDS' RECOMMENDATION: LABORATORY NOTIFICATION

11.33 Those responsible for the review of the notification provisions of the 1984 Act should consider the proposals of our witnesses for reporting of diseases by causative organism, and for mandatory reporting of certain resistances. The NHS must face the resource implications of any increase in the burden of reporting placed on hospital laboratories; and the level of feedback from the PHLS must be correspondingly improved.

*Summary of Government Response in December 1998*

- Government is looking to take powers at the earliest opportunity that Parliamentary time permits to enable a statutory scheme of reporting by laboratories.
- "Information for health—An Information Strategy for the Modern NHS 1998–2005" will increase the effectiveness of laboratory reporting by integrating information systems and through use of the NHSnet.

## PROGRESS SINCE GOVERNMENT RESPONSE

86. The Government's preferred option now is to move towards automated capture of relevant laboratory data for surveillance purposes using suitable software. The PHLS's central electronic database is being redeveloped following a successful pilot by the Antimicrobial Susceptibility Surveillance Unit (AmSSU) in Trent, using Routinely Generated Surveillance Data (RGSD) systems. This will greatly facilitate both data collection and the rapid feed-back of data to reporting laboratories.

87. A review of public health legislation in Scotland is ongoing and new legislation is to be proposed to Scottish Parliament in 2002–03.

88. Following a successful pilot within the PHLS in Wales, funding is being considered to roll-out the "Datastore" product to all NHS laboratories in Wales. This will enable a complete download of all microbiology data from laboratory systems, including antimicrobial resistances. This is seen as part of the enhanced surveillance system which will allow ready inspection of resistance trends.

## HOUSE OF LORDS' RECOMMENDATION: UK WIDE COMPATIBILITY OF DATA

11.34 Health Ministers should set a deadline for full compatibility of definitions and data-collection between the PHLS and its analogues in Scotland and Northern Ireland.

*Summary of Government Response in December 1998*

- There is an ongoing and continuously-developing collaboration between the PHLS and its analogues in Scotland and Northern Ireland.

## PROGRESS SINCE GOVERNMENT RESPONSE

89. This issue needs to be addressed in the context of continuing work by the different administrations to improve communicable disease control.

90. The PHLS in Wales is active in this area with projects designed to capture data from all laboratories. We are also in close touch particularly with colleagues in Northern Ireland with regard to definitions.

91. In Scotland, a Sub Group of the Advisory Group on Infection has been working on recommendations for surveillance of hospital acquired infection and antimicrobial resistance in Scotland. This group is committed to the principles of UK-wide compatible systems for surveillance of antimicrobial resistance. It is examining the component surveillance initiatives already in place and will make its recommendations for surveillance in Scotland and provide a business case to the Scottish Executive by the end of 2000. Meanwhile, SCIEH continues to have a close and ongoing liaison with the PHLS in these areas.



*1 March 2001]**[Continued]*

## HOUSE OF LORDS' RECOMMENDATION: IT NEEDS OF SURVEILLANCE

11.35 Those responsible for the NHS Information Technology Strategy should consider the scope for IT to facilitate surveillance.

*Summary of Government Response in December 1998*

- "Information for Health—An Information Strategy for the Modern NHS 1998–2005" is designed to harness the potential of IT to enhance the day-to-day work of clinicians and to enable clinical information to be used for secondary purposes such as epidemiological analyses of the patterns of disease and resistance.

## PROGRESS SINCE GOVERNMENT RESPONSE

92. Those in DH responsible for implementing the NHS IT strategy are represented on the IDSG and are closely involved in the on-going discussions on IT needs for surveillance and for the monitoring of antimicrobial use.

93. PHLS in Wales was responsible for the UK contribution to the RHINE project. The Project established new mechanisms for the linking of disparate data sources which has allowed the IT team at PHLS in Wales to develop many of their current techniques. These will contribute to the further development of their Datastore project and the subsequent publication of local and regional data for microbiology using web-based technology.

94. The ECOSS (Electronic Communication of Scottish Surveillance) system has been developed by SCIEH with funding from the Scottish Executive Health Department. The aim is to link laboratories electronically with SCIEH and with each other to improve the collection of surveillance data. In due course this system may be further developed to include antimicrobial resistance data.

## HOUSE OF LORDS' RECOMMENDATION: SURVEILLANCE OF HOSPITALS

11.36 The NHS should examine the ICARE Project run by the US Centers for Communicable Disease Control and Prevention (CDC), and consider the possibility of setting up something similar, possibly in partnership with CDC.

*Summary of Government Response in December 1998*

- DH and PHLS are giving active consideration to whether some aspects of the ICARE project might be incorporated into the Nosocomial Infection National Surveillance Scheme (NINSS) programme and/or the antibiotic resistance surveillance programme.

## PROGRESS SINCE GOVERNMENT RESPONSE

96. Following an independent review of the NINSS programme the DH Healthcare Associated Infection Surveillance Steering Group (HAISG) has been established to provide strategic advice on healthcare associated infection surveillance needs in general. This group includes people with expertise in surveillance activity and practitioners who know what surveillance would be most helpful in order to bring about real change. The group's considerations will include the way in which the current surveillance programme should be developed and it will look at elements of the ICARE project. One of the aims of this group is to develop a surveillance service which all trusts will participate in from April 2001. It is intended that data will be published in an easily accessible format from April 2002.

97. The ICARE surveillance approach is one of the surveillance areas being considered by the Scottish Advisory Group on Infection's subgroup on surveillance.

98. The Welsh Datastore project will provide the tool for local antimicrobial surveillance and will allow the aggregation of anonymised data to be collected regionally and forwarded centrally to any UK database initiatives.

## HOUSE OF LORDS' RECOMMENDATION: STRATEGIC APPROACH TO SURVEILLANCE

11.37 The Government should engage constructively with the efforts of the BSAC and the PHLS to put resistance surveillance on a more strategic and comprehensive footing, and should find additional resources. NHS Trusts and universities should examine their priorities in the resourcing of their microbiological laboratories.



*1 March 2001]**[Continued]**Summary of Government Response in December 1998*

- DH supports the PHLS plan to develop a new five year antimicrobial resistance programme, which will provide a broad-based approach to measuring antibiotic resistance.
- DH is taking forward work that will culminate in guidance to the NHS to increase understanding of the significance of the NHS laboratories' contribution to public health microbiology.

## PROGRESS SINCE GOVERNMENT RESPONSE

99. The Department of Health has worked with both the PHLS and BSAC in the development of the PHLS antimicrobial resistance programme and complementary activities. Earlier paragraphs refer to the development of a national surveillance scheme based on capture of routinely generated susceptibility data. This is supplemented within the PHLS programme by sentinel surveillance of resistance in particular organisms, "alert organism" surveillance and various existing disease or organism-based systems.

100. A seminar planned for early 2001 to be hosted by the Royal Society of Medicine in collaboration with the DH will take stock of the current position, review surveillance needs at local, regional and national levels, and make recommendations.

101. The Scottish Action Plan for the Control of Antimicrobial Resistance which is currently out for consultation includes a surveillance strategy. A subgroup on surveillance of hospital acquired infection and antimicrobial resistance is considering operational aspects of the implementation of the strategy. The development of ECOSS in Scotland should provide a valuable surveillance tool in this area.

## HOUSE OF LORDS' RECOMMENDATION: CLINICAL ACADEMIC MICROBIOLOGY

11.38 The failure of clinical academic microbiology to attract recruits and fill senior posts must be addressed by the NHS, the HEFCs and the heads of medical schools. This seems to be a special case of a more general problem concerning the pressures placed on clinical academic medicine by the conflicting demands of the Research Assessment Exercise and the ever-growing burdens of teaching, service provision and administration; we have expressed concern about this before, and we do so again.

*Summary of Government Response in December 1998*

- The Government shares the Committee's concern about the decline in academic medical microbiology posts in the UK and has brought this to the attention of the Committee of Vice-Chancellors and Principals of the Universities of the United Kingdom (CVCP).
- The CVCP has indicated that whilst it has limited scope at national level to influence particular specialisms such as microbiology, the more general problem of the threat to clinical academic medicine identified by the Committee continues to engage its closest concern.

## PROGRESS SINCE GOVERNMENT RESPONSE

102. The shortage of academic clinical microbiologists continues to cause concern.

## NEW DRUG DEVELOPMENT

## HOUSE OF LORDS' RECOMMENDATION: ORPHAN DRUG DEVELOPMENT

11.39 The Government should respond positively to the EU proposal for an "orphan drug" regime, and should seek to ensure that the scheme gives the pharmaceutical industry a real incentive to work on novel treatments for problem diseases, particularly diseases of the world's poor such as malaria.

*Summary of Government Response in December 1998*

- The Government will contribute fully to the discussions during the negotiations between Member States on this proposal.

## PROGRESS SINCE GOVERNMENT RESPONSE

103. The "Regulation on Orphan Medicinal Products" came into force on 22 January 2000. It provides incentives for the development of medicines for rare diseases which would otherwise be uneconomical. DH held a seminar in September 2000 to disseminate information on the Regulation to relevant organisations.



*1 March 2001]**[Continued]*

## VACCINES

## HOUSE OF LORDS' RECOMMENDATION: VACCINE RESEARCH

11.41 We commend the establishment of the Edward Jenner Institute. The numerous agencies committed to research into effective vaccines must keep up the good work.

*Summary of Government Response in December 1998*

- Research proposals from the Centre for Applied Microbiology and Research are being reviewed. These address various aspects of antibiotic resistance and vaccine development.

## PROGRESS SINCE GOVERNMENT RESPONSE

104. The Government's co-ordinated strategy enabled the UK to be the first country to introduce a comprehensive childhood/adolescent immunisation programme using the new conjugate meningococcal C vaccine. This has resulted in a dramatic fall in reported cases of Group C disease in immunised groups. This same approach is now being applied to the appraisal of conjugate pneumococcal vaccines in children and in adults.

## VIRUSES

## HOUSE OF LORDS' RECOMMENDATION: MONITORING RESISTANCE IN ANTIVIRALS

11.42 As new antivirals reach the market, the NHS must ensure that they are used prudently from the start, and that changes in susceptibility are monitored.

*Summary of Government Response in December 1998*

- NICE (and SIGN and SHTAC) will consider, and authorise guidance on these types of issues.
- DH will fund a three year project with PHLS to look at geographical and temporal differences in HIV drug resistance.

## PROGRESS SINCE GOVERNMENT RESPONSE

105. NICE undertook a rapid appraisal of the antineuraminidase inhibitor zanamivir (Relenza) against influenza in 1999 and is due to produce a full appraisal in October 2000. NICE is also considering the use of ribavirin in combination with interferon alpha for the treatment of Hepatitis C. Its appraisal is due in October 2000. Once NICE has produced guidance, the DH and the PHLS will review the requirements and arrangements for monitoring resistance.

106. DH is funding a project with the PHLS Anti-viral Susceptibility Reference Unit (AvSRU) to look at geographical and temporal differences in HIV drug resistance. The project began on 1 May 1998 and runs for three years. Scottish specimens are also tested in this reference laboratory. NICE is to consider kitemarking the British HIV Association (BHIVA) Guidelines on the use of combination antiretrovirals in the treatment of HIV/AIDS, first published in 1998.

107. The Health Technology Board for Scotland, in partnership with NICE, will consider the need for advice on new antivirals reaching the market. SIGN will develop guidance as appropriate on the use of these agents.

## HOUSE OF LORDS' RECOMMENDATION: PHLS ANTIVIRAL RESISTANCE LABORATORY

11.43 The PHLS reference laboratory for antiviral resistance must be adequately resourced.

*Summary of Government Response in December 1998*

- The antiviral susceptibility reference unit was established and is maintained out of DH's core funding to the PHLS.

## PROGRESS SINCE GOVERNMENT RESPONSE

108. DH provided additional funding of £2.3 million for the PHLS for 1999–2000. Central funding for the Antiviral Susceptibility Reference Laboratory is approximately £203k and it generates some £130k additional income from its testing services.



*1 March 2001]**[Continued]*

## INTERNATIONAL

## HOUSE OF LORDS' RECOMMENDATION: SUPPORT FOR WHO

11.45 Government support for the WHO Divisions for Emerging Diseases should be maintained, and the UK Government's example should encourage other nations and agencies to contribute to this vital work. We endorse the resolution on this subject which is to be considered by the World Health Assembly in May; we urge the Assembly to pass it.

*Summary of Government Response in December 1998*

- Government will continue to play its part in ensuring that key issues are addressed internationally as well as at national and local levels.
- Government will press for surveillance to be given priority in WHO's next global and regional biennial work programmes and in the future framework for EC action in the field of Public Health.

## PROGRESS SINCE GOVERNMENT RESPONSE

109. WHO is giving this topic high priority. It chose antimicrobial resistance as the theme for its Annual Report on Infectious Diseases in 2000. The Report "Overcoming Antimicrobial Resistance" was published on the same day as the UK Strategy (16 June) and launched at a press conference in London. WHO has now prepared a draft WHO Global Strategy for the Containment of Antimicrobial Resistance and a UK expert is closely involved in this process. An early presentation on this work was given to the WHO Meeting of Interested Parties in June. The EU public health group has established an expert group to advise on appropriate use in humans.

## HOUSE OF LORDS' RECOMMENDATION: MALARIA RESEARCH

11.46 The Government and the grant-awarding bodies must maintain the UK's good record of support for malaria research, and for the efforts of the WHO to help poor countries to help combat this disease.

*Summary of Government Response in December 1998*

- DH fully supports the high priority the MRC gives to the very high standard of malaria research being carried out in the UK which is aimed at improved control of this disease.

## PROGRESS SINCE GOVERNMENT RESPONSE

110. The MRC continues to support malaria research. DfID is a major sponsor of WHO's new "Roll Back Malaria" campaign. The Government has also welcomed funding provided by the Bill Gates Foundation to the London School of Hygiene and Tropical Medicine.

## RESOURCES FOR RESEARCH AND DATA-COLLECTION

## HOUSE OF LORDS' RECOMMENDATION: RESEARCH FUNDING

11.48 The grant-awarding bodies and the NHS Executive should reconsider the important public health issues surrounding antimicrobial research, and should give such research an enhanced priority. As in the case of surveillance, we particularly commend this as suitable area of activity for the NHS R&D Strategy.

*Government Response*

- DH is liaising closely with the Medical Research Council (MRC) to ensure that public health issues are appropriately addressed through the MRC's research programme, the NHS R&D Programme and DH's Policy Research Programme.

## PROGRESS SINCE GOVERNMENT RESPONSE

111. In December 1998 the Medical Research Council placed on the web a Highlight Notice inviting submissions in the field of antimicrobial resistance. As a result, to date, one Programme Grant and a number of Strategic Grants have been awarded. The DH's Director of Research and Development, Sir John Pattison, is currently chairing the Research Subgroup of the Interdepartmental Steering Group on Antimicrobial Resistance. This group is taking a broad look at the research requirements in the field of antimicrobial resistance and has met four times since September 1999. The group includes representatives from the MRC,



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BBSRC, Wellcome, PHLS and the ABPI, as well as some of the key professional societies in the field. One of the terms of reference for the group is: "to establish relative priorities for new research in the field of antimicrobial research, in the light of existing research funding". The Group is currently drawing up recommendations for research on antimicrobial resistance for veterinary and medical, basic and applied research. Once a programme has been identified, the Department will place an open call for research probably during 2001.

#### HOUSE OF LORDS' RECOMMENDATION: BETTER RESEARCH PROPOSALS

11.50 We challenge the research community to come forward with proposals which, given the increased interest in the field which is already apparent, will fully justify support from the grant awarding bodies.

#### *Summary of Government Response in December 1998*

- DH is liaising closely with the MRC to ensure that public health issues are appropriately addressed through the MRC's research programme, the NHS R&D Programme and DH's Policy Research Programme.

#### PROGRESS SINCE GOVERNMENT RESPONSE

112. Since the House of Lords report, the Medical Research Council have taken action to encourage research proposals in the field of antimicrobial resistance. A number of proposals have come forward from the research community in response to this call for research, and some have successfully received MRC grants.

113. DH continues to liaise closely with the key funding bodies, including the MRC, within the Research Sub Group of the IDSG, to ensure that public health issues are appropriately addressed. The proposed call for research following the Research Sub Group's recommendations will hopefully continue to stimulate research interests in this field and encourage high quality applications.

#### INFORMATION TECHNOLOGY

#### HOUSE OF LORDS' RECOMMENDATION: IT DEVELOPMENT

11.51 The NHS Executive must work towards the goal of compatible and interconnected IT for every GP, every hospital ward and infection control team, and every clinical microbiology laboratory. They must accept the considerable cost involved; and they must give a strong lead from the centre to ensure compatibility.

#### *Summary of Government Response in December 1998*

- "Information for Health . . ." addresses this. Specific attention will be given to training clinicians on how to record, use and communicate effectively through electronic means.

#### PROGRESS SINCE GOVERNMENT RESPONSE

114. All GP practices and all Trust pathology services will be connected to NHSnet by 2002 and end 2000 respectively, and will have the basic software tools and training they need to use the network. Later targets will include connection of all clinical and other relevant staff in primary and secondary care. An education and awareness programme supporting the roll-out of PRODIGY started this year.

115. In Wales, the equivalent to NHSnet is the Digital All Wales Network (DAWN). As with England, there is a programme underway to give access to all GPs. All Trusts and HAs are currently connected. The Health of Wales Information Service (HOWIS) is due to launch in October 2000 on DAWN but the tools and information has been available for some time via the Cymruweb services on DAWN. Ultimately, HOWIS will give controlled access to Welsh information not only to the traditional health community but allied services such as social services and environmental health. The plan is to make aggregated data available to the public via the Internet.

#### AN EPIDEMIC IN ITS OWN RIGHT: GOVERNMENT STRATEGY

#### HOUSE OF LORDS' RECOMMENDATION

11.54 The Government should develop a strategy to safeguard the effectiveness of antimicrobials along the lines recommended in this report; they should back it with resources; and they should set themselves and the Health Services challenging targets for real improvement.



*1 March 2001]**[Continued]**Summary of Government Response in December 1998*

- The Government's response shows that it is well advanced in developing and taking forward a comprehensive strategy aimed at maintaining the effectiveness of antimicrobial agents in the treatment of infection and infectious disease and minimising morbidity and mortality from antimicrobial resistant infection.
- The Government believes it is well ahead of many other developed countries in developing an integrated national strategic approach to this problem. The Government recognises that this work must be sustained, with joint working across disciplinary boundaries, and that action must be maintained at local, national and international levels.

**PROGRESS SINCE GOVERNMENT RESPONSE**

116. The UK Strategy to tackle Antimicrobial Resistance Strategy and Action Plan was published in June 2000 along with an action plan setting out the tasks involved. It is intended that the strategy will be reflected in the work programmes of individual departments and organisations. Key Government departments and other organisations will develop action plans with milestones to cover their own contributions to the overall strategy. The Strategy is seen as a developing document that will be reviewed on an ongoing basis and which will influence the ongoing workplans of departments and organisations.

117. The Scottish Executive Strategic Group on Antimicrobial Resistance issued its Action Plan for Scotland for consultation in August, together with a copy of the UK Strategy document. Responses to this exercise are due to be submitted by the end of September. Thereafter, a revised Plan will be finalised and distributed widely.

118. The NI Department of Health, Social Services and Public Safety (DHSS&PS) is developing a strategy for Northern Ireland based on the UK strategy, to be published for consultation early in 2001.

**Examination of Witnesses**

YVETTE COOPER, a Member of the House of Commons, Under-Secretary of State, Department of Health, was examined; DR MARY O'MAHONY, Department of Health, and MR RAY ANDERSON, Ministry of Agriculture, Fisheries and Food, were called in and examined.

*Lord Soulsby of Swaffham Prior*

1. Minister, may I thank you very much indeed for coming along for what is in fact a mini review of progress on our Report of nearly three years ago. Do you have any opening comments to make and would you also introduce your colleagues who are supporting you?

(Yvette Cooper) Thank you, my Lord Chairman. I have with me Mary O'Mahony, who is Head of the Communicable Diseases branch in the Department of Health, and also Ray Anderson from MAFF. I would like to make a few opening remarks on the progress that has been made over the last few years in this area, but also on what are the main challenges that we still have. I think the Report that the House of Lords' Committee produced in 1998 was extremely welcome and very much acted as a stimulus for a lot of the action that has taken place since, both nationally and internationally. Since then a lot has been done, however there is clearly a considerable amount to do, and we should be realistic because the pressure from antimicrobial resistance has grown, exactly as your Lordships and others predicted it would. It remains a major health threat. As long as we continue to use antimicrobials, clearly the problem of resistance will not go away, despite all the benefits that there are from using antimicrobials. In the memorandum we have submitted we have set out in quite a lot of detail some responses in particular areas, so I will not repeat the detail on that. What I wanted to do was outline the approach that we have taken. Clearly what the

Government wants to achieve is, firstly, to minimise the development of resistance through prudent use of antimicrobials, through appropriate prescribing, and the development and use of vaccines; and secondly, to prevent and contain infections, particularly antimicrobial resistant infections, as part of an infection control strategy across the board. We have set out elements of a very broad-ranging strategy on both of these two fronts. The approach that we have taken in drawing up an effective strategy is firstly, to develop national standards or guidance or a sense of what it is that we need to achieve or what the best practice is in that area, secondly, local systems of delivery and implementation and the spreading of good practice, thirdly, ensuring that we have the data and the information on what is happening, both with surveillance so we know how widespread the problems are, but also for monitoring and ensuring that the best practice is being implemented, and then, finally, systems of accountability, of monitoring and information so that where things are not happening where they ought to we have some system of follow-up to ensure that problems are chased. The strategy that has been drawn up in this area has involved the Inter-Departmental Steering Group described in the memorandum and its various sub-groups, and work will be taken forward in the UK Expert Advisory Group and also in the development of the communicable disease strategy. I would point to a few things as outcomes that have happened so far to briefly highlight them. In the area of minimising development of resistance we are seeing changes in



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GP prescribing, we are seeing changes in patients' expectations, we are seeing changes in use of antimicrobials in animals, and we are also seeing systems in place to reduce inappropriate prescribing and the need for antimicrobials in hospitals. There is a lot of work being done in this area and we are seeing results being delivered particularly in primary care. The second area is around infection control where we do not yet have effective, comprehensive measures of progress, but I hope we will shortly. In particular, in hospitals we have set national standards through the Controls Assurance Programme, and we have local implementation through chief executives' accountability through the work of infection control teams, and we will shortly have new systems of surveillance particularly on MRSA, which will be in place from April of this year, and a system of inspection and monitoring to hold trusts to account. We have made considerable progress but I would recognise that there are gaps as well where in some areas progress has not been made as fast as we would like. When the World Health Organisation publishes its global strategy we hope that it will be apparent at that point that the United Kingdom is ahead of many countries in this area, but we also need to be clear that that is no cause for complacency and what we need to do in this area is measure our performance not against other countries but against the problem that we face. We are well aware that it is a very daunting problem indeed. In what I have said I hope I have communicated the fact that we take this problem extremely seriously. We do have in place key elements of a strategy to tackle it, but we are well aware that there is considerable work still to do.

2. Thank you very much for that broad overview. I think I can comment on behalf of the Committee that we are glad that the Government is taking the issue seriously because I think you will recall our words in our Report when we described it as an "alarming experience" which needed immediate attention. Let's start with the educational aspects of prudent use and you have, in fact, attended to that with various publications both for the medical profession, *The Path of Least Resistance*, and doctors' surgeries, and have addressed it. I know Lady Platt would like to follow up a little about mothers with young children, but in your document you say "further phases of the campaign are planned for the next two years", that is 2001 and 2002. How far has the planning for this gone and which target group do you intend to identify? Since nothing has happened in 2000, what can we expect this year and next year?

(Yvette Cooper) I am quite a fan of the 'Andy Biotic' campaign. I think that was a good one and quite an effective approach and so I think I would be keen to pick up on that kind of theme again, although we have not made final decisions on that in any sense. What we have done is identify a group of practitioners to include GPs, district and school nurses, members of the public, epidemiologists, microbiologists, educationalists and media experts to be in the core group to make recommendations about what form the campaign should take over the next year and we will be guided by their advice. In terms of this year the materials that were launched as

part of the campaign last year have continued to be used this year. We also picked up the same theme as part of the winter campaign around "what do I do if I have flu" with the appropriate use of the NHS and linked in with NHS Direct to include things around the use of antibiotics and what to expect in terms of going to see your GP about antibiotics. We did keep the same theme going this year. The question is whether we return to the same type of antibiotics campaign and reiterate it this year or whether we should take it further. One of the suggestions from the Department is that we should very much think about mothers and young children. I am not quite as convinced of that for two reasons. I think the concept of the mother or the woman as "guardian of the family health" is perhaps becoming more out-dated than it was and the danger of health education campaigns that always see health campaigns as aimed at women as guardians of the family health is that men are excluded from them and they do not reach men. I would need to be convinced that the main people for whom antibiotics are inappropriately prescribed are children and mothers of children before I was convinced that the campaign should focus predominantly on mothers and children again. Secondly, I think there may be a limit to how much you will ever convince parents about antibiotics and children's health. Frankly, if you have a child howling with an ear infection, and the Calpol is not working, thinking that you should wait for a few days in case it goes away is not a course of action that a lot of parents would ever be assured by, no matter how many leaflets they had. I just enter those as notes of caution around campaigns that are entirely focused around mothers and children. We have thoughts in mind about a media campaign, about working through GPs' surgeries, possibly picking up work through schools and the Healthy Schools Programme, although we will need to consider that quite carefully.

Baroness Platt of Writtle

3. I was very pleased when I sat in my local pharmacy waiting for a prescription to see facing me "don't insist on antibiotics", but you have said yourself it is probably the mother who wakes up in the middle of the night when a child is screaming and we did have this GP from Leeds who said, "With four minutes per patient it is always much easier to say yes than no." It did seem to me a good idea to put interesting articles into the way of women's magazines where they can be much wider and they do not need to be short and to the point. It is short and to the point when you are sitting in the pharmacy, but I think you could help with women's magazines. One of the things I do is encourage women in science and engineering, but because I am an engineer it is easier to persuade me, but there are a lot of women who have not had good science education in school and who would be more likely to insist, whereas if they have read a wide-ranging article they could be better informed as to how their child might be cured.

(Yvette Cooper) I think that is right. I think effective health information work is never simply going to be about leaflets. There is only a certain



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amount of information you can provide in a leaflet, but using magazines and other fora, you can provide information for health journalists doing far more broad-ranging pieces who can cover a subject in more detail or more colour, to find the human examples of whatever it might be, can often be far more effective. That is certainly one of the options we are considering. It is something we have looked at as well in other campaigns.

*The Minister withdrew to vote in the House of Commons*

*Lord Soulsby of Swaffham Prior*

4. If I may carry on, Mr Anderson, on the code of practice for vets on the prescription of fluoroquinolones and other antimicrobials. I must say that I believe the veterinary profession has responded quite well to this but we would welcome any news of the codes that are in place. Have they had an impact on the volumes of antibiotics used in veterinary practice, particularly mass medication practices known as "metaphylaxis"?

(Mr Anderson) There is certainly a plethora of codes of practice for the veterinary profession and for farmers and they do emphasise, in particular, the need to use fluoroquinolones very sparingly. It is quite difficult to estimate the extent to which the introduction of these codes of practice and other measures taken under the MAFF action plan have had an impact on the volumes of antibiotics used in veterinary practice. However, we do see the trends in use (and for that we use the proxy of sales of antimicrobials) as being quite promising. The Veterinary Medicines Directorate has now published data on sales of antimicrobials for use on animals covering the years 1993-1999 and copies are being placed in the House library. The interesting trend in relation to sales of antimicrobials used in food animals is that they peaked at 629 tonnes of active ingredient in 1996 and they have since fallen to a 1999 figure of 411 tonnes, with the largest fall between 1998 and 1999 of 111 tonnes, which represents 21 per cent of the total. The major fall was in the use of antimicrobials in animal production systems to enhance growth where in 1999 there was a 69 per cent fall to a very low total of 28 tonnes. That was largely due to a ban brought in by the European Union which took effect in the United Kingdom on 1 July which removed the authorisation for use of four of the eight antimicrobial growth promoters and that was of course reported in the memorandum which was submitted to your Lordships in November. However, sales of therapeutic antimicrobials between 1998 and 1999 also fell by 50 tonnes to a total of 383 tonnes and this represents a 12 per cent fall. Specifically in terms of fluoroquinolones, I would say, my Lord Chairman, that these products are not widely used as animal medicines largely because they are very expensive and, in terms of tonnes of active ingredient, the total has been a more or less steady one tonne of active ingredient throughout the period in which these products have been authorised. You also asked about the term "metaphylaxis" (or metaphylaxis) which is a term which I believe was coined in Germany but which we

do not tend to use in the United Kingdom. I think the issue to which you were referring is the treatment of whole flocks or whole herds once clinical signs of disease are evident within the animal population and in cases where the infected animals are in contact with those not yet displaying clinical signs of disease. In such cases treatment would need to be justified very carefully by the veterinary surgeon with the animals under his or her care on welfare grounds, and the case would normally be where it was clear that to withhold treatment from "in contact" animals would increase the spread of the disease within the flock or herd. Although this is obviously more common in veterinary practice where animals are often kept in close contact, there are some analogies perhaps in human medicine where you could experience programmes of antibiotic prophylaxis or indeed vaccination against certain types of meningitis amongst groups of school children or students where they had been in contact with a confirmed case.

*Lord Walton of Detchant*

5. You said that four out of the eight growth promoters which are antimicrobials were banned by European legislation. Which of the four have been retained as being available? For example, is avoparcin still available for use as a growth promoter in the animal kingdom?

(Mr Anderson) No, avoparcin was banned in 1997 in an earlier measure brought by the Commission. Of the four growth promoters left three are ionophores and the fourth is avilamycin. Clearly the ionophores have no analogue which is being used in human medicine. In the case of avilamycin there was an analogue which was being developed as a human therapeutic but I understand that the company concerned has withdrawn that product during a phase of clinical trials and it appears unlikely that that analogue, everninomycin, will now be authorised as a human therapeutic.

6. So we can conclude therefore that none of the substances used in animals for growth promotion carry any potential hazards for human health?

(Mr Anderson) That appears to be the case, your Lordship. I should say that, nonetheless, the European Commission is committed to keeping the use of these four antimicrobial growth promoters under close review.

*Lord Howie of Troon*

7. You mentioned a product, the use of which had diminished largely because of the expense. If that product were cheaper would you like to see it used widely?

(Mr Anderson) Your Lordship, I suggested that it was not widely used because it was expensive but it is expensive because of the nature of the product. As things stand, we are certainly encouraging the veterinary profession to think of this product, a fluoroquinolone, the active ingredient of which is enrofloxacin, to be used as a treatment of last resort when other narrower spectrum antimicrobial



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products have failed. Certainly we would not want to see it more widely used as an antibiotic of first resort.

8. You would like to see it used more than it is?

(*Mr Anderson*) No, I did not say that. We say that it should only be used as an antimicrobial of last resort when narrower spectrum antimicrobials have failed to treat the disease.

*Lord Rea*

9. You did say that as well as growth promoters having come down, antibiotics prescribed or used for veterinary purposes have also come down, apart from the ones we have just been talking about. Do you feel that this is due to a change of heart or professional practice because of the prevailing wisdom that has come out of this House and other documents (post-graduate and undergraduate education) or do you think it is because perhaps the farming industry is at a low ebb and cannot afford them, or are you not able to tell?

(*Mr Anderson*) I think, my Lord, it is very difficult to disentangle different causes. The other major factor is the level of disease in the animal population in any given year. It does seem clear to us that the profession has responded to the dispersal of codes of practice, and there is also a great deal of education going on through the British Veterinary Association which runs veterinary pharmacy courses and I am sure that those two things, the codes of practice and the veterinary pharmacy courses, have had a positive effect in encouraging more prudent use of antimicrobials in treatment of animals.

10. Farmers are dispensing with the use of vets a little bit now because of their economic situation. Can you say that that may also have contributed to this? Can you separate antimicrobials used by farmers without prescription?

(*Mr Anderson*) I think, my Lord, first of all, all therapeutic antibiotics authorised in the United Kingdom are prescription-only medicines. The only exception to that is the growth promoters which are available without prescription. I think it may well be the case that the straitened situation of the farming industry may have led to less of a call on the veterinary practitioner and that will have had some effect on the amount of antimicrobial compounds which have been used.

*Lord Soulsby of Swaffham Prior*

11. In view of the fact that Sweden and Denmark have now abolished use of antibiotics as feed additives and we have responded to the European Union Directive with feed additives recently banned last July, do you think that the era of using antibiotics as growth promoters and feed additives is on the way out, and that good husbandry and better attention to animals has been demonstrated in Denmark to be more important than trying to control things like antibiotics?

(*Mr Anderson*) Yes, my Lord Chairman, I do think that that is happening and to some extent I think the change has been driven by the United Kingdom consumer who would prefer to have animal products

which have come from animals which have not been fed with growth promoters. We have seen that through the market place where a number of retailers have requested their suppliers to ensure that they institute husbandry practices which remove any need which there may have been in the past to use antimicrobial growth promoters. I would certainly see that trend continuing. Indeed, MAFF is funding a certain amount of research to look at the possibilities of developing husbandry systems which eliminate the need for the sort of low-level protection against disease which has been provided in the past by certain of the antimicrobial growth promoters.

*The Minister returned.**Lord Walton of Detchant*

12. Minister, in our report in 1998 we recommended education and continuing professional development for doctors in the area of prescribing. Your memorandum shows a welcome decline in the prescribing of antibiotics by GPs. Do you think that our report and the Government's response to it has played a part in that change? Do you have any precise information about what is happening in hospitals, in particular since your memorandum was prepared in November last year? Is there any evidence of a change of incidence in MRSA, for example, in hospital populations?

(*Yvette Cooper*) If I could just comment on the GP side of it first. We have some new data which shows that the prescribing of antibiotics by GPs declined by a further 5.6 per cent between 1999-2000, so the overall reduction over three years is 23.4 per cent. I think that is welcome and, yes, I certainly think that the Committee's Report and the action that has been taken since then has contributed to that. It is hard to pin down which measures have made the difference, whether it has been the broader ranging education of primary care professionals, whether it has been research showing that inappropriate antibiotic use can be ineffective, whether it is work promoting best practice and the various kinds of training and education programmes that have been in place, but the overall impact has clearly been to move in exactly the right direction. How far that has been about public expectations as well, I do not know. I think what we need to do is to continue that work and to continue that support as well. The issue around hospitals and hospital prescribing data (which is something that the Committee has further questions on), is not as clear-cut because we do not have the same data in the same way. We will have data on prescribing in hospitals and we will eventually have it through the electronic patients' records system. Obviously that will take time to put in place on a comprehensive basis, but by the end of 2002 we should have it in place in about 35 per cent of trusts. Although it will not provide us with a comprehensive picture of what is happening in every trust and exactly which trusts have got problems and which have not, it will be a good guide to us as a substantial sample of what is happening and what trends are taking place in prescribing practice and I think that will be very useful information. What we do know on



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the hospital side is there has been an improvement in terms of the number of hospitals having prescribing policies, and systems in place to tackle prescribing issues and to deal with antimicrobial resistance or to try and prevent antimicrobial resistance. We are following up those trusts which do not have prescribing policies around antimicrobials, so that progress is taking place even in advance of having the data. You also asked about MRSA information in hospitals. There again what we need is comprehensive surveillance. We will by April of this year have a new surveillance system in place which will make it compulsory for all trusts to report MRSA although the first year will be used to sort out any problems about the data. We should then expect to be publishing that data on MRSA right across every hospital in the country by April of next year and that will provide us with the clear baseline on exactly what is happening, not simply as an overall trend across the NHS but, importantly, to be able to compare what is happening between one trust and another as well.

13. You also recommended that under-graduate medical curricula, and post-graduate medical education and vocational training should give more emphasis to infectious diseases and antimicrobial therapy. I wholly appreciate how difficult this is because when I was President of the GMC I recall that in the course of three months we received 42 letters from specialist interest groups seeking more time in the under-graduate curriculum for psycho-sexual counselling, bereavement counselling, palliative care etc. One could go on and on and on, and it was very difficult indeed to see how all of these interests could be accommodated. Your memorandum suggests nothing has changed. What has happened, if anything?

(Yvette Cooper) There is some progress being made but obviously we do not have control over the under-graduate medical curricula, and we are probably as guilty as anybody else of wanting our particular concerns reflected in every possible change. There has been some scoping of the production of materials that could be used in under-graduate information—looking at what materials you could use in under-graduate medical education, with the British Society for Antimicrobial Chemotherapy. That, I hope, would allow us to look not just at production of materials for under-graduate education but materials that might be expanded for post-graduate education and for continuing professional development as well. We are also waiting for the review by the GMC of Tomorrow's Doctors where we have raised the issue about proper coverage of antimicrobial resistance. The other area where I think we have an opportunity and where a change is taking place is in the project to modernise senior house officer grades which is underway and which I think provides a good opportunity for the Royal Colleges to re-visit curricula, so we will certainly press for greater coverage of antimicrobial resistance in that area as well.

Baroness Walmsley

14. Could we now move to infection control, Minister, if we may. We recommended that infection control and basic hygiene be at the heart of good hospital management and in your memorandum you list a series of actions taken on this. First of all, may I ask you what additional resources have been provided for infection control?

(Yvette Cooper) You will be aware that resources for the NHS and for trusts have been expanded across the board and that we have considerable expansion taking place, with over 6 per cent real increase in funding for the NHS on average over the next three years. We do very much see infection control and basic hygiene as core issues for the NHS. We think it should be something that local trusts should be doing and then should be deciding how much they need to spend on it according to the problems that they have in place rather than having a prescribed level. We have, in addition to that however, made new funding of £5 million available over the three years to fund developmental work, particularly around production of guidelines and support for surveillance, and we have also allocated £1 million through the Department of Health regional offices in order to secure improvements in infection control training. On some of the facilitative support we have allocated additional resources and of course you will also be aware that we have put additional money into the Clean Hospitals Initiative which whilst not directly infection control is about supporting infection control in the broadest sense as well. So I think there are considerable additional resources available but it is a matter for the individual trusts to prioritise and make sure this is an issue that is properly dealt with at the local level.

Baroness Platt of Writtle

15. The day we saw the infection control nurses we felt they were a "Cinderella". They lacked secretarial support and they said that because of the cheap soap in hospitals nurses did not wash their hands as often as they would have liked to have done because if they did their hands cracked and therefore they were infected themselves. We talked about this in the Report, as my Lord Chairman said at the beginning, as an "alarming experience". I do not get the impression that anyone else has been alarmed about it and those infection control nurses were alarmed when they came to see us. Is something being done to really make sure they are being helped in the way they need to be helped?

(Yvette Cooper) We have given quite a lot of thought to what is the right way to make sure that the hospital as a whole prioritises infection control. You cannot leave it to a small team of infection control nurses. The fact is infection control has to be everybody's business and the role of infection control nurses is very much to support other staff and to make sure this is something that happens right across the hospital, and that every single member of staff, whoever it might be, is involved in this. What we felt was important was that really the accountability should go right through to the top



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and chief executives should be accountable for answering when it comes to infection control. We also need a system in place of monitoring, and these national standards and the controls assurance programme that every hospital has to implement, both the Audit Commission and the Commission for Health Improvement can inspect them on. The chief executive is accountable for infection control directly. By having this data (which we will over the next year) on MRSA in one hospital compared to another, we will have a very clear indicator of how hospitals are performing on MRSA and a very clear way of being able to hold the chief executive to account thereby giving the chief executive the incentive to ensure that the infection control teams are given the support they need and that infection control is implemented properly right across the hospital. That is the mechanism we felt would be the most effective. Some of those pieces of the jigsaw still need to come into place with the new surveillance system but I think in general it is the right kind of approach to push accountability right through to the very top of the hospital.

16. Minister, you have talked about the infection control teams and they have an infection control nurse, but how many such teams have an infection control consultant as recommended by the Committee's Report three years ago and how many of them have a seat on the trust board?

(Yvette Cooper) All trusts have a post of infection control doctor although obviously at any one time there may be some vacancies. I could not tell you for certain that every trust had an infection control doctor in place right now but certainly every trust has a post of infection control doctor. There is no requirement for infection control teams to be represented on the trust board although the board should receive annual reports from the infection control committee and they should be answering to the board. The system, as I mentioned a little before, is that we feel it is important that the chief executives are involved in the infection control committees and are responsible for ensuring that the infection control arrangements are in place. The recent information we have shows the picture has changed over the last few years in that from what used to be 63 per cent last time the figures were counted to 91 per cent of chief executives are now involved in infection control committees, either in person or through a senior representative. I think that is a very good sign of infection control committee work being taken seriously at a senior level as well.

17. You mentioned in your introductory comments that you want to measure success against the magnitude of the problem and not just the numbers compared to other countries, but what is the current ratio of infection control nurses in relation to acute beds? Has any progress been made from the 1998 figure towards the sort of level we have in the United States? Does your answer imply that as you get the problem under control the number of infection control nurses would be likely to go down?

(Yvette Cooper) We do not have information on the recent ratios of infection control nurses to

patients and I think also it is not clear that the number of infection control nurses to patients is necessarily the best indicator of whether an infection control policy is working or delivering results. In the end a tangible outcome of what we want to measure is the level of MRSA in a hospital. The number of infection control nurses will clearly be an important factor, but our view is that infection control needs to be the business of everyone in the hospital. It is not what is happening with everybody else, it is how well the systems are working that is important, so I think we need to make sure that what it is we monitor and measure is the right thing rather than simply something which may be one factor in the process but not actually tell you exactly what is happening. That is why the surveillance system is based around MRSA. The controls assurance programmes do not specify particular levels of nursing to patient ratios; what they set out are particular standards that need to be achieved and particular things that need to be in place. Then it will obviously be a matter for individual trusts on the basis of the kind of referrals they have, the kind of patients they have, the kind of case mix they have, exactly what level of staffing and what skill mix they need in place. What we are doing, however, is looking at ways to provide trusts with more support in how to identify what is the best skill mix for their particular circumstances, how to identify what is the appropriate level of staffing dedicated to infection control, the appropriate mix of staffing skills that they need. At the moment we are working on a tool kit we might be able to provide to help trusts to make these decisions.

*The Committee suspended from 4.46 pm to 4.53 pm for a division in the House of Lords*

*Lord Jenkin of Roding*

18. When we held this inquiry I was chairman of an NHS trust and therefore found myself discussing issues with which I was having to deal on the ground. This was the Forest Healthcare Trust which included Whipps Cross Hospital. As you have been responding to the questions from my colleagues here, I find myself really, if I may say so using quite strong language, actually rather appalled by the amount of top-down, detailed, prescriptive instructions you appear to be giving now to trusts, although you have made one or two references to "trusts must do what is appropriate in their own case". I think when we heard the evidence in the Committee we were very impressed, as Lady Platt has said, by the infection control nurses who are from the nursing field the top professional people involved; we were also very impressed by the clinical micro-biologists we saw. Indeed in many hospitals infection control consultants are in fact clinical micro-biologists, they may be pathologists or whatever. I wonder what has happened to the philosophy where one expects the top professional people to be responsible for the achievement and attainment of standards within their professional competence? You have laid great stress on making the chief executive accountable. The chief executive



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[Continued]

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must be accountable for seeing the system is in place. But if the men in suits start telling doctors to wash their hands on the wards, they will be very properly told off. Some of the chief executives and people of this sort may have clinical qualifications but most do not, certainly most chairmen do not, and I speak as a former chairman; what he looks for is top professional competence and professional accountability and professional responsibility. If you have that within your trust or your hospital and that is backed-up by proper standards, surveillance and monitoring, I cannot see why you need to have all these details—£1 million for this, £2 million for that, you have to make sure, you have to have returns on this. I just feel what you are doing is undermining the professional responsibility of the professional people who should be responsible for delivering it. Would you like to comment?

(Yvette Cooper) I think there are two points I would make. Firstly, I think that is a mischaracterisation of what system is in place. Secondly, if the previous system was so great and if the professions were all doing it and it was working wonderfully, why did we have a rise in MRSA? So I do not think it was enough for us to simply stand back and do nothing, say, "That is fine, leave it to the professional competence of the people who are dealing with it".

19. Forgive me, that was not what I was suggesting, but do carry on.

(Yvette Cooper) How do we characterise the system we have in place? What I was trying to set out at the beginning was that the approach we think we should have is national standards, local systems of delivery, and then systems of holding them to account both through information-gathering but also through inspection. So we have a system of national standards, and those national standard systems were developed with the professions, with the Infection Control Nurses Association. All were very closely involved in the controls assurance programme. The fact was, you may have had some trusts doing it but you may have had others which were not. I think it is right to have a system of national standards in this area but then local systems of delivery which have to work out, "What is the best way to do it in this particular hospital given the particular case mix we have, given the particular problems we have." It is a matter for local areas to decide how to do it. That is why we do not prescribe the number of infection control nurses, for example; why we do not specify exactly what it is that needs to be done; but we set national standards which have to be achieved, and I think that is the right approach. It is then for local areas to actually deliver on that, and then we have a system of inspection in place and a system of accountability to make sure they do. That is the right approach to take. To say, "This is an area where you should not have national standards", would be the wrong thing. The resources I was talking about earlier, and you referred to the 5 million and 1 million and so on, are relatively small pots of money put in to develop and support guidance and circulate best practice. That was facilitative money, rather than actually say, "This is

the money you have to spend on a particular infection control strategy locally." It is actually for local areas to make sure that they are delivering to the standards and meeting the standards but they have to decide themselves how to do it. I think it is the right thing to involve chief executives in this, because although a lot of this is about professional staff, about medical staff and about the decisions they take, it is also about a requirement on chief executives to make sure they have enough infection control nurses to do the job, to make sure that staffing arrangements support it, to make sure the right communication systems are in place to support it, the right management systems are in place to support it. If you only have the professionals committed to doing it and the senior management is not, then you are not going to get the right result. So I think it is right to make sure the chief executive ultimately is accountable, but in practice the delivery is going to be a medical one; delivery is going to involve the health professionals because they are the experts and they are the ones who have been involved in what the standards should be, they are the ones who have been involved in setting out how you should do this and what the best practice is. They are the ones who have the expertise in this area, but it is right that the chief executive should be held to account and that we have national standards to make sure that every trust in every area is able to deliver those national standards rather than just some.

Lord Jenkin of Roding: I think it may very well be that I gained a false impression from what you were saying before we broke for the division. What you are saying now is something which seems to make a good deal more sense and I would applaud that. But the danger I feel—and I saw this happening in my trust—is that if one tries to prescribe too much, in the end the professional people say, "We will do what comes from the centre, and that will be that" and to some extent feel they have fulfilled their professional responsibilities. To my mind in this area among all others—and of course it applies to a lot of others as well—you have actually got to inculcate the senior professional people with a real pride in achieving what they are doing. If you go into a really good hospital—and I spent some days in Papworth Hospital recently—one sees what you really can achieve in a really good hospital, and I do not think that has been achieved by the chief executive, but by the top doctors and nurses.

Lord Turnberg

20. Minister, are you on target for the national surveillance system by 2001? If not, what are the limiting steps? Is it resources? Is it IT? What is it that is likely to limit your ability to achieve this?

(Yvette Cooper) We believe we are on schedule. The way it will work is that the reporting will be compulsory from this April, and that the data will be ready to start being published from next April, so we have a year to sort out the teething problems with the data or problems we have in gathering it, but the standard certainly is that trusts should be



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reporting the information from this April. We also are clear that we will follow up any areas where there are gaps or any areas where there are problems. That is what we believe to be the current position, and therefore we should be in a position by next April to have in place a system where we are not simply gathering the information but are in a position to publish it as well.

21. Are you happy there are sufficient IT systems in place so that reporting can go on smoothly?

(Yvette Cooper) This has been worked out in great detail with the NHS and from the point of view of the trusts gathering the data and so on. I think the right approach has been taken in terms of working with hospitals to deliver it and make sure it is being done in a way which is most manageable for the trusts in the way they are providing it.

(Dr O'Mahony) Information from surveillance on hospital acquired infection really does need to be facilitated and it has to be collected locally, regionally and nationally. What has happened this year to facilitate the information is that money is being given out to regions to help trusts work through the national system to help gather data locally for their own use, to contribute to regional information and to national information as well. At the same time, we have not lost sight of the need to look at this long-term using the electronic patient record and any new laboratory systems.

Baroness Platt of Writtle

22. It was 1998 when we made this recommendation and it was accepted, and yet you suggest nothing will happen before 2002. Why is there this delay? I come back all the time to the fact we had an alarming experience, but it does not sound as if other people did.

(Yvette Cooper) We are talking about the community side?

23. Yes.

(Yvette Cooper) I think this is an area for concern; not alone in the time it is taking but also actually how we manage infection in the community. One of the reasons why this area is slower than hospitals, is because it is more difficult than hospitals to have information-gathering, whether it be identifying the level of the problem in terms of antibiotic resistance or MRSA in the community, but also in terms of having systems in place to sort it out. It is easier if you are talking about an institution with particular routines, management structures, whatever it might be. I do recognise this as a gap and that this is an area of concern.

24. Are you sure it will happen by 2002?

(Yvette Cooper) Certainly the intention is to roll out the controls assurance programme to cover the community as early as we possibly can. The guidelines on infection control in the community have been commissioned and we are keen for those guidelines to be incorporated as part of the National Institute for Clinical Excellence's programme, because that is increasingly the system by which we are endorsing national guidelines for the NHS to work through. It also, I think, gives

them more status and credibility if they have gone through the National Institute process. The schedule at the moment is for guidelines to be published in 2002. At the same time as that we have the regional directors of public health examining existing infection control arrangements in community settings, so we have a starting point of what systems we have in place at the moment. I would recognise this is an area of concern and it is partly because we actually do not have the simple answers or the easy systems we can bring in and put in place as easily as we can in other settings.

Lord Turnberg

25. I think the Minister knows I am chairman of the Board of PHLS, so I do have a little interest in this area. You were keen to emphasise the need for surveillance and monitoring as being a very important part of your objectives. The original recommendations were that the R&D budget and the MRC should be prepared to support surveillance, and it is not clear from your written answer whether you have agreed this should be through the MRC for research into the process or for surveillance as such.

(Yvette Cooper) I do not think it would be appropriate to use research budgets for routine surveillance, because routine surveillance needs the right kind of systems in place, the right infrastructure in place, the right IT in place, whatever it might be and we have other mechanisms for doing that. I do not think that is an appropriate use of R&D budgets. What I do think, however, is that R&D budgets should be able to include research projects which include surveillance. That might be one-off surveillance projects, research projects which include epidemiological studies; for example, looking into ways to improve surveillance methods. We do have a research programme, part of the Department of Health research programme, of between £2 and £2.5 million over the next three to four years for funding high quality research in the antimicrobial resistance field. I think it would be wrong if projects which included surveillance were excluded because there are routine surveillance methods in place, but it is clear that projects which receive research funding should be research projects even if they include surveillance as part of them. I hope that is clear.

26. I am sure research budgets should be used for research; that is entirely right. Do you have any idea of how much of this has actually gone on these projects, how much is being spent on these sort of projects?

(Yvette Cooper) I have no idea. We can certainly give you that information if we have it.

(Dr O'Mahony) In terms of antimicrobial resistance, the money has been set aside and when the expert committee meets there is a report to consider about possible areas of research in this field.

27. Are you going to look at bids to you or are you going to suggest research which should be done?



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[Continued]

Lord Turnberg *contd.*]

(Dr O'Mahony) There will be a report to be discussed. Obviously the expert committee will come with views on what should be the areas for research, but there is work being done in the meantime to provide background information which may be required.

28. So you will not be open to bids?

(Dr O'Mahony) Yes, we will be open to bids.

Chairman: Over the last two years or so we have felt both the NHS R&D budget and indeed the MRC have been somewhat slow to respond to what we have said in our report, and I hope from what you have said we can hope to have a better input from both bodies in the future. There is a need to do research into surveillance techniques and measures and things like that not only for surveillance but for the methods of surveillance and the new technologies which can be used. There seems to be a gap somewhere in the understanding of that need in both the R&D of the NHS and indeed in the Medical Research Council too. We will take good note of your comments.

*Lord Howie of Troon*

29. I have been finding this discussion slightly depressing, if only because as a very occasional user of antibiotics I have had nothing but happy experiences of them, and I hope that will continue. We pointed out the difference between the good data available on GPs' prescriptions and the lack of data in hospitals. You did touch on that in your answer to Lord Walton, but we were a bit unhappy about your target date of 2005. Is that still the date? While you are at it, can you tell me whether or not the scheme for obtaining data from a commercial supplier has been followed up?

(Yvette Cooper) 2005 is the timescale for having in place the electronic patient records for every trust across the country, and once that is in place we will be able to provide comprehensive information about prescribing data in hospitals. That will obviously be the most extensive and best data we can get on prescribing practice but that will take until 2005 to have in place. However, we do not need to wait until 2005 and have no information until then. By 2002 we expect to have 35 per cent of Trusts signed up to the electronic patient records, and whilst that will not provide us with the picture in every single trust, 35 per cent is a really quite significant sample, and so will allow us to get significant information about trends about what is happening over time and also about variations between the different areas. So that should provide us with very helpful information even if it is not complete. What may also be possible is for individual trusts to see how far they are able to use their own pharmacy data as well. We do have prescribing policies in place in three-quarters of trusts, and we are following up those which do not; that is acute trusts. They are now expected to have antimicrobial prescribing policies in place and many are looking at to what extent they are able to use their own data effectively; however we simply do not know how far that may be the case within individual trusts. We do have information about

how far those kind of policies are being implemented and adopted and how far they are being signed up to. What we have also been exploring is whether or not it is possible to get interim data from the commercial supplier. Discussions are continuing, so we do not yet know how fruitful that is going to be. The honest answer is that we have an incomplete picture on hospital prescribing but that will gradually become more complete year by year.

30. Are you saying that by 2005 you will have roughly the same kind of information regarding hospitals as you have for GPs, or are you merely saying you will have enough for your purposes?

(Yvette Cooper) I think we will have pretty much the same kind of information we have for GPs by 2005. We will have the ability to draw out the complete information by 2005. What we will have by 2002 is 35 per cent of the picture.

31. So you are hoping that sometime before 2005 you will use this commercial information?

(Yvette Cooper) We will certainly do whatever we can to see what can be used in the meantime. I suspect that 35 per cent of the picture will actually tell us quite a bit, and that will be something we will achieve around 2002, so that is a significant milestone as well.

32. You do not seem too sure about the commercial supply?

(Yvette Cooper) The answer is because I am not. We are exploring that.

33. That is a splendid answer; ten out of ten.

(Dr O'Mahony) The commercial supplier with whom the Department had initial discussions has been taken over. Because the company itself has been bought out, there are now discussions with the new company. There is a meeting planned for 12 March with the new managing director.

*Baroness Platt of Writtle*

34. There is this date of 2005 and another date of 2002, but one of the things we were anxious about was the compatibility of IT systems between GPs, hospitals and the public health laboratories, which quite definitely did not exist in those days. To what extent does it exist now and when will it be complete?

(Yvette Cooper) The whole approach to the electronic patient record system is to have something which is compatible across primary care, secondary care and so on; to have a single compatible system.

35. And the PHLS?

(Dr O'Mahony) That would be the ideal and I think it will take some time to get there.

36. When?

(Dr O'Mahony) There has not been a target date set. It is very much part and parcel of the development of the pathology systems within the NHS information strategy and that is going on alongside the general information development that has been required for individual patients. It is quite



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a convergence of systems of information and it will take quite some time.

(Yvette Cooper) We are talking about two parallel systems of information-gathering here, one which is about prescribing practice and the other is about levels of infection. On the surveillance of infection, whether on MRSA or whatever, the system is developed very much with the PHLS. The prescribing system we are talking about is about getting information from the electronic patient records around prescribing information.

37. We definitely got the feeling that everybody felt they needed compatible IT.

(Yvette Cooper) That is certainly true.

Baroness Platt of Writtle: And they need a target date for that.

Lord Soulsby of Swaffham Prior

38. The next question is about money. You report that the Public Health Laboratory Service had a welcome boost of £2.3 million, but what is happening next year? This was a one-off budget. I know the people in the PHLS have complained, of course, that included in this was inflation, so in fact what they got was very much less than it seemed. As I think you are aware, while the boost was welcome they are waiting to see what is going to happen in future budgets.

(Yvette Cooper) We have certainly accepted in principle that we will be needing some inflation funding for PHLS which it did not have in the past. What happened was a one-off boost to the PHLS of £2.3 million in 1999 in order to respond to particular problems and difficulties the PHLS was facing. Then as part of the Florey Report, which looked into the overall sustainability of financing and organisation of the PHLS, it was accepted that central funding should be increased to address inflationary pressures each year, and that it should also be given access to growth funding to support agreed service developments as well. The central funding which was recently agreed for 2001-2002 provides an increase of £2.6 million. It is true for future years following that they have not been confirmed, just as with other central budgets, although the recommendations of the Florey Report and the inflation funding are all accepted in principle, so there is no intention to change from that in future years.

39. So they can look forward to increased funding over a period of time? How far ahead are you looking?

(Yvette Cooper) The Treasury will not let us agree funding beyond the Comprehensive Spending Review period each time, but the principle of inflation funding was accepted in the Florey Report.

Lord Winston

40. You would agree, would you, that the PHLS is central to the policy on antibiotic resistance and antibiotic usage generally in the National Health Service?

(Yvette Cooper) Very much so. A lot of the work that the PHLS does in this area is absolutely essential and superb, so it is definitely a key player.

Lord Soulsby of Swaffham Prior

41. Of course as well as the importance that the PHLS has in this country, and it is very important, antimicrobial resistance is a global problem and one of the important aspects is the co-ordination of surveillance through other public health services in countries in Europe and indeed elsewhere in the world. Has that been taken into account in the funding, the need to have a global approach to surveillance?

(Yvette Cooper) Certainly the Department has been involved in World Health Organisation discussions about developing a global strategy around antimicrobial resistance, and that is something that we certainly support because increasingly in the European market it is very easy to see how diseases and problems spread very quickly in all kinds of areas and across borders. So, increasingly, the international side is something we take very seriously.

(Dr O'Mahony) A lot of work has been carried out by the PHLS on international surveillance activity: in the field of enteric infections with salmonella; with Legionnaires Disease, and the PHLS co-ordinates the European surveillance system for those two diseases. This approach, which has European-wide standardisation of laboratory methods and reporting methods on each disease, can be mapped across to include antibiotic resistance, and I would imagine it is the wish that this would proceed.

Lord Winston

42. Are there particular organisms which you have considered to be particularly important in global terms which you would like to tell us about?

(Dr O'Mahony) One of the main diseases which people have a great concern about is in relation to tuberculosis, and the PHLS with colleagues across the NHS has done a lot of work in this field in the last five or six years. This has set a precedent for the way forward for looking at information in this country and also contributing to European-wide information through the European Tuberculosis Surveillance system.

43. Could you tell us a bit about the rise of resistant-tuberculous organisms in Britain?

(Dr O'Mahony) I do not have the detail with me but my impression is that this has been something of concern for several years. The impetus was looking at what happened in New York in the late 1980s when there was a record rise in the level of tuberculosis. This was accompanied by increasing cases in the former Soviet Union. These changes made the authorities in this country very anxious about the potential for spread with people coming into this country, or people travelling abroad, so a surveillance system was set up with chest physicians and others in public health, putting in place a very sound and robust system which would track the



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level of infection in the country, the treatment that was given and the resistance that was occurring. We are very fortunate so far in this country that with the really strong, robust approach to it in the NHS, there is very little indication that we are hitting a major problem at the moment, but this is something which is being kept under very close observation. There is an annual report published every year which looks at the total number of cases of tuberculosis and the resistance of the individual cases to particular drugs which are used in this country.

*Lord Soulsby of Swaffham Prior*

44. I understand, Minister, that you have to leave at 5.30 and we are on our last question. I wonder if your colleagues could take that question in your absence? Would that be permissible?

(*Yvette Cooper*) Yes, that would be fine.

45. Thank you very much indeed for coming along.

(*Yvette Cooper*) Thank you very much. We strongly welcome your Lordships' continued interest in this subject.

*The Minister withdrew*

Chairman: At long last, after the Swann Report 30 years ago, we now have an overarching committee, as I have called it, and we are very happy that our science adviser, Professor Richard Wise, has been named as the first committee's chairman.

*Lord Jenkin of Roding*

46. What resources are going to be allocated to this important, new overarching body?

(*Dr O'Mahony*) This will be a very important committee and at the moment we are beginning to look at what will be required. Obviously one of the key areas we will wish to know about is what is the breadth of work which will be required by the expert committee: we will respond to that. That is something we would wish to take on board as soon as work gets underway.

47. As the Lord Chairman has said, it was first recommended by Swann, repeated by us three years ago, why on earth has it taken so long?

(*Dr O'Mahony*) There have been two reasons for it. The first is that in setting up an expert committee such as this, the Nolan principles have to be followed and we also have to make sure that we get as wide a representation as possible on the committee because we are very conscious that to tackle this problem we have to have all the major players with an interest in this field, and it has proved not that easy to get the interest, although we have encouraged it. Another reason, I have to admit, is that some resources from the Department have been pushed into the area of hospital acquired infection in the last year, to make sure some of the basic activities were underway.

*Lord Haskel*

48. Having set up this committee, can you tell us how it will relate to your Department, and perhaps Mr Anderson can tell us what the relationship will be with MAFF?

(*Dr O'Mahony*) The expert committee will advise the Government and will work with the interdepartmental committee. This interdepartmental committee was set up to make sure that some work was taken forward at a departmental level while the expert committee was being set up. Once the expert committee has been set up and we know from the expert committee members what they wish to proceed with, the work will be incorporated into the activity of the interdepartmental steering group with our colleagues from MAFF.

*Baroness Wilcox*

49. I have been a bit tardy in reading down the list of people on this committee, but this is a committee of experts and there is no consumer representation on that body at all. You might be able to allay my fears and say, "No, this is not an all-expert committee." We have not made that mistake again, have we?

(*Dr O'Mahony*) The interdepartmental group will not be the expert group. The interdepartmental steering group has an infection control nurse as a member.

*Baroness Platt of Writtle*

50. She is not listed though, is she?

(*Dr O'Mahony*) Yes, Carole Fry is listed here. Perhaps this is not very clear because she is under Members, Ms Carole Fry, NUR.

51. I thought that was National Union of Railwaymen! I did not really see how that was going to be helpful! She is an infection control nurse?

(*Dr O'Mahony*) She is, and she is sitting behind me.

*Lord Soulsby of Swaffham Prior*

52. Are there any other questions on this overarching committee? I think I can echo for everybody on this Committee the joy that in fact you have done it. We were wondering whether it was going to take another 30 years to do it. The way you were going at times, we did in fact think it was.

(*Dr O'Mahony*) My Lord Chairman, we are taking it extremely seriously. We are a Department with a mission on this.

53. Are there any other points you wish to raise that we have not dealt with? If there are, we would welcome them in writing from the Ministry.

(*Dr O'Mahony*) Thank you, my Lord Chairman. We will take note.











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