Report

meeting	HEALTH SELECT COMMITTEE	
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Report of the Chair of the Health Select Committee

STUDY INTO THE MRSA SUPERBUG – FINAL REPORT

Purpose of the Report

1. The purpose of the report is to seek comments on the draft final report of the scrutiny study into MRSA in Nottinghamshire. The work on this review has been undertaken by both the Health Select Committee and the Joint Health Select Committee, with the Patient Forums of Acute Trusts also being invited to assist.

Background

2. Around 5,000 people die from infections acquired in hospitals in the United Kingdom each year, according to the National Audit Office. The most well known is arguably methicillin-resistant staphylococcus aureus, commonly known as the MRSA superbug. In the region of 7,000 patients are currently affected by MRSA each year in the UK. MRSA can be treated with the antibiotic vancomycin but worryingly the bacteria is becoming increasingly resistant to it. Scientists are warning that the death rate from MRSA will increase if it becomes necessary to find alternative drugs with which to treat it.

Aims of the Project

3. At the outset of the review, it was proposed that the aims of the project were to:

- Determine the levels of MRSA in Nottinghamshire hospitals
- Use Patient Forums to report on levels of cleanliness in Nottinghamshire hospitals
- Receive evidence from the appropriate experts within the Acute Trusts as to what measures are being taken in Nottinghamshire hospitals to combat MRSA
- Seek examples of best practice on how MRSA is being tackled

- Produce a ‘State of MRSA in Nottinghamshire’ report

Methodology

4. It was proposed that evidence gathering be allocated on the following basis:

Health Committee: to receive evidence from Sherwood Forest Hospitals Trust, Doncaster and Bassetlaw Hospitals Trust, and Primary Care Trusts as appropriate. To receive evidence from experts and desk research as appropriate.

Joint Health Committee: to receive evidence from the Queen’s Medical Centre Acute Trust and Nottingham City Hospital Acute Trust. To receive evidence from experts and desk research as appropriate.

Patient Forums: to identify work already undertaken by Patient Forums on MRSA and to request a report on standards of cleanliness in Nottinghamshire’s hospitals.

5. The County Council’s Health Committee has taken evidence from:

- Dr Richard Slack, Senior Lecturer at the Health Protection Agency
- Carolyn White, Executive Nurse Director, Sherwood Forest Hospitals Trust
- Dr Rahman, Consultant Microbiologist, Sherwood Forest Hospitals Trust
- Jeffrey Worrall, Chief Executive, Sherwood Forest Hospitals Trust
- Julie Wright, Community Infection Control Nurse at Mansfield Primary Care Trust

6. The Joint City/County Health Scrutiny Committee has taken evidence from:

- Dr Tim Boswell, Microbiology Head of Service (Queen’s Medical Centre) and Director of Infection Prevention & Control (Nottingham City Hospital)
- Fiona Branton, Community Infection Control Nurse, Nottingham PCT (based at Sherwood Health Centre)

7. The Committee has also commissioned evidence from the Nottinghamshire Coroner and care home managers.

8. As set out in paragraph 4, the Patient Forums have been requested to carry out cleanliness surveys on the hospitals in the city and county. This however has not yet taken place. Therefore the Committee is not in a position to produce a ‘State of MRSA in Nottinghamshire’ report at this time. The Patient Forums are completely outside the control of this Committee and so there is no way of compelling them to undertake this work. Membership of the Forums is voluntary and they have to

prioritise tasks within their work programmes. However they are all aware of our request and it is to be hoped that some inspections will be carried out in the near future.

9. Given their powers of access to local hospitals, Patient Forums are ideally placed to undertake cleanliness inspection of premises.

Recommendation 1

It is recommended that Nottinghamshire Patient Forums consider undertaking cleanliness inspections of hospitals within their remit as part of annual work programmes.

How MRSA is Spread

10. MRSA can be found on the skin, in the nose and in sputum. It is carried by around 30% of people without being aware of it, or without any infection being caused by it. This is known as being 'colonised'. If no illness is being caused, there is no need for treatment. MRSA can only be diagnosed by a swab being taken and analysed in a laboratory. It can be dispersed from a person into the air, eventually settling on items such as clothes, bedding and other equipment.

11. There can be direct spread of MRSA from person to person. In a hospital, for example, a patient with MRSA could infect another patient.

12. There can also be indirect spread of MRSA. In a clinical setting, MRSA might be spread via the hands of healthcare workers or contaminated equipment. The general environment might also be contaminated; MRSA can be found in dust, for example.

Hygiene

13. The importance of high standards of hygiene has been highlighted extensively in the media in recent months. Hospitals are responding to the problem by making a member of top management responsible for hygiene standards. There has also been much coverage of the possible return of matrons to hospitals. The Committee welcomes any step to improve hygiene standards. However, to ensure that standards of cleanliness are high, it is vital that there is action on everyone's part. People, whether a hospital Chief Executive, doctor, nurse, patient or member of the public, should realise that they each have a part to play.

14. The regular cleaning of hospitals has been the subject of much debate nationally. The Committee does not intend to enter the political arguments of tendering for cleaning contracts. What the Committee would say is that all Health Trust Boards should ensure that:

- Cleaning specifications and contracts are of a necessary level to ensure high standards of cleaning in hospitals; and

- Management ensures that the cleaning contracts are delivered in full both through direct line management and contract management.

Recommendation 2

It is recommended that every Acute Trust Board, the Nottinghamshire Healthcare Trust Board and PCT Boards with management responsibility for a hospital should review:

(a) all cleaning contracts to ensure that they meet the necessary hygiene standards; and
(b) management and contract monitoring procedures to ensure that agreed cleaning standards are being met.

15. Evidence to the Committee has highlighted the importance of hand hygiene. It is encouraging to see that the Nottingham City Hospital launched a hospital-wide campaign in 2002 to promote hand hygiene and it is now the third largest user of alcohol handrub gel in the National Health Service. The Sherwood Forest Hospitals Trust has also highlighted the extensive amount of handrub gel available in all of its hospitals.

16. Patients can also play a part by pointing out parts of the hospital that they feel are dirty and in need of cleaning. They can also ask staff treating them if they have washed their hands since treating the previous patient. The Committee was particularly impressed by the initiative used in some hospitals across the country where patients wear large badges with the legend: “Have you washed your hands?” If hands that come into contact with MRSA are not carefully washed and dried before touching someone else, the bacteria can be spread to the next person.

17. From personal observation, Committee Members are concerned that some hospital staff are wearing ‘outside’ clothes in the work environment. For example, junior doctors going on a ward in the same clothes they travelled to work in. Logistically hospitals do not have the cleaning facilities or changing space to enable staff who come into contact with patients to change clothes on arrival. However it would be good practice for junior doctors, for example, to put on a white coat or blue clothing over their normal clothes when they go on duty.

18. Similarly, from personal experience, Committee Members are concerned that the standard of cleaning of a bed before a new patient occupies it is sometimes less than thorough. They question whether this is so because of the pressure to meet bed occupancy targets. They would encourage all hospitals to ensure that beds are thoroughly cleaned before new patients are placed in them.

Recommendation 3

It is recommended that Acute Trust Boards consider:

(a) regular education campaigns for staff, patients and the public on the importance of hygiene and handwashing; and
(b) requiring staff who come into contact with patients to cover up the clothes in which they travel to work.
(c) ensuring that all beds are thoroughly cleaned before new patients occupy them.

MRSA Bloodstream Infections

19. The Department of Health has set a target of a 60% reduction in MRSA bloodstream infections by 2007/08. The baseline is 2003/04. This target has been incorporated into the national targets for the 2005 – 2008 Local Delivery Plan.

20. Evidence from Nottinghamshire hospitals has shown a number of initiatives to reduce MRSA bloodstream infections by tar. These include:

- Alerting Infection Control Teams through IT to the re-admission of MRSA cases.
- Making alcohol handrub gel being widely available on hospital wards.
- Reducing the number of elderly medical patients on surgical wards where patients at risk of serious MRSA infection are situated.
- Reduced use of fluoroquinolene antibiotics – a recognised risk factor for MRSA.

21. Through such initiatives Nottinghamshire hospitals have been making great strides to reduce the number of MRSA bloodstream infections by targeting high risk areas. Nottingham City Hospital, for example, has been achieving significant reductions in MRSA bloodstream infections in recent years as shown in the following table:

Table 1: Breakdown of MRSA Infections 2002-04: Nottingham City Hospital

	Total MRSA	Total Bacteraemia	Nottm City Hospital Bacteraemia	Imported Bacteraemia
2002	614	82	67	15
2003	586	61	46	16
2004	505	51	32	19

22. The City Hospital is in danger of being a victim of its own success in reducing the MRSA bloodstream infections. As a result of the new

national target, it will have to make its reduction from a relatively small baseline:

Table 2: 60% Local Delivery Plan Target for Nottingham City Hospital

	Annual Total Nottm City Hospital associated MRSA Bacteraemia	Annual Total All MRSA Bacteraemia
Baseline	35	51
2007/08	14	20

23. Table 1 illustrates how that despite the number of MRSA infections being reduced, there is still a large reservoir of MRSA amongst patients who are colonised rather than infected (see paragraph 10 for definition).

24. The Committee has heard evidence that many of the patients with MRSA colonisation are not identified by current screening protocols, and cross-infection with MRSA on the wards, and in nursing homes, is often not recognised. Thus MRSA has now become an endemic problem in many areas.

Recommendation 4

It is recommended that all those involved in care provision, both in residential healthcare and the community, continue to make tackling MRSA a major priority and support initiatives to help meet the Local Delivery Plan target for MRSA reduction.

Single Rooms and Modern Buildings

25. The evidence heard by the Committee suggests that one of the reasons why MRSA has got a hold in the UK may be due to the very nature of our hospital system. Hospitals in this country tend to be large, treat a wide variety of medical conditions and house a significant proportion of patients in multi-bed wards. By having patients of all ages with a variety of illnesses and conditions, the chances of cross-infection are raised. Similarly the proximity of people in multi-bed wards can lead to infections passing from patient to patient. The Committee has been told that housing more patients in single rooms would make infection control easier.

26. The Committee was particularly impressed by the 'Modernisation of Acute Services' project currently being undertaken by the Sherwood Forest Hospitals Trust. This project concerns a multi-million pound redevelopment of King's Mill and Mansfield Hospitals.

27. It is unfortunate that financial problems have delayed Nottingham City Hospital's plans for a several hundred million pound redevelopment of

its buildings. The sooner the financial problems can be resolved, then the quicker the old buildings can be replaced with modern facilities.

Recommendation 5

It is recommended that every Trust Board with responsibility for hospital facilities should make infection prevention a significant component of the redesign of its buildings whenever that might take place in the future.

Community MRSA

28. With the heavy media on hospital MRSA cases, it perhaps might be thought that MRSA is only confined to the hospital sector. This is not the case. Unfortunately MRSA is also to be found in the community as well. Thus MRSA can go from the community into hospitals, and similarly from hospitals into the community. Particular attention needs to be paid by care homes, including a wide range of Social Services-provided facilities. No reliable statistics are available on the levels of MRSA in the community.

29. As part of the strategy for tackling community-based infections, Primary Care Trusts have been introducing Community Infection Control Nurses to work with PCT Directors of Infection Prevention and Control. Their evidence reveals a complex community health environment with hospital discharges being earlier than in previous years. These patients often need home care with a wide variety of medical equipment and devices employed. Hence there are a number of possible opportunities for MRSA to be spread.

30. Just as strict hygiene procedures are necessary in hospitals, these must also be observed in the community. Therefore education and advice for staff, patients and the public are very important. The need for thorough handwashing when coming into contact with a patient or medical equipment is as important as in a hospital.

31. The use of inappropriate antibiotics has been recognised as a risk factor in MRSA (see paragraph 19) so this needs to be carefully monitored in the community.

32. A further complication in the community is that so many staff are employed in caring for people from a whole variety of agencies. Therefore it is vital that all staff are educated in the dangers of MRSA and aware of prevention techniques such as handwashing. Social Services Departments and Primary Care Trusts should ensure that both directly and indirectly employed staff are properly trained in MRSA issues.

Recommendation 6

It is recommended that Social Services Departments and Primary Care Trusts ensure that all staff they employ, either directly or indirectly, are fully trained in measures to avoid the spread of MRSA.

Recommendation 7

It is recommended that Nottinghamshire County Council's Cabinet Member for Social Services should commission a review of measures to prevent community MRSA in our care homes and related facilities.

A Strategic Approach to Tackling MRSA

33. Having reviewed the evidence it has heard from a range of professionals on the issues surrounding MRSA in Nottinghamshire, the Committee strongly believes that a strategic approach is the best way to try to reduce MRSA infection in the future. It particularly commends the MRSA strategy, produced by the Nottingham City Hospital, as a good model to be followed. A copy of the City Hospital strategy is attached as Appendix A. From the diagram, it can be seen how this strategy aims to link together all the key stakeholders in preventing MRSA. In particular the strategy suggests clear roles and links between the hospital and the community to pick up potential patient discharges with MRSA or re-admissions with MRSA.

34. The strategy highlights the need for improved screening of people to check for MRSA and speedier analysis of swabs in the microbiology laboratory. A further feature of the City Hospital strategy is having a dedicated isolation ward for MRSA and more side rooms to isolate patients. Indeed a group of microbiologists has recently raised nationally the need for all patients to be screened for MRSA before entering hospital and those found to be positive to be treated separately from those without MRSA. Also doctors and nurses who treat those with the infection would not be allowed to come into contact with the non-infected patients. They further suggest that it may be necessary to restrict friends and relatives visiting hospitals. To do this would obviously require both significant resources and a fundamental redesign of hospitals. It illustrates that the debate over tackling MRSA will continue for some time to come.

Recommendation 8

It is recommended that all Acute Trusts participate with the Primary Care Trusts on an MRSA strategy for Nottinghamshire. This might be one strategy for the county or it could be arranged on a sub-county basis. All partners must be encouraged to sign up to the strategy.

Recommendation 9

It is recommended that all Trust Boards consider the resource implications of tackling MRSA as part of their budget planning processes with a view to making additional money available if necessary.

Deaths from MRSA

35. There is little agreement about the amount of deaths caused annually by MRSA in the United Kingdom. The National Audit Office (NAO) estimates the number of deaths to be in the region of 5,000 per annum. The NAO's report is based on projections using US statistics, rather than on the details from actual death certificates as used by the Office of National Statistics (ONS). A recent report from the ONS suggested deaths from MRSA in 2003 was just under 1,000. Even so the ONS figures suggest the bug is killing twice as many people as it was in 1999. Moreover, determining the degree to which MRSA contributes to the death of already seriously ill people is a very imprecise science. Leading MRSA experts point out that it is difficult to attribute a death solely to MRSA as very sick people are normally suffering from a combination of underlying diseases, making the main cause of death hard to know. Doctors are currently not required to state the cause of death as MRSA – only the immediate cause, like heart failure. Therefore MRSA may not figure on the death certificate at all.

36. During research, the Nottinghamshire Coroner was contacted for his experience of MRSA. He confirmed the national picture that he only saw MRSA as a cause of death on a handful of certificates per year. As there are several thousand deaths in Nottinghamshire per year, only some can be investigated by the Coroner's Office. Normally, when the media reports on an MRSA-related death, it is because relatives of the deceased have pursued the matter and found that MRSA was a contributory factor.

37. Unless it becomes a requirement to record the presence of MRSA on death certificates, it seems that we will continue to remain in the dark about the precise number of deaths to which it is a direct cause or a major contributory factor.

Recommendation 10

It is recommended that a letter is sent to the Department of Health requesting that guidelines are issued to ensure consistency in the recording of MRSA infections and deaths. This would enable a baseline figure to be established so that future MRSA infections could be monitored against this baseline.

RECOMMENDATIONS

38. It is recommended that:

(1) the Committee considers the content of the draft report on MRSA;

(2) the final MRSA report is referred to the Cabinet with a request for a response to the relevant recommendations within 3 months;

(3) the final MRSA report is referred to the Boards of all the Nottinghamshire Acute and Primary Care Trusts with a request for a response to the relevant recommendations within 28 days of the Board meeting being held; and

(4) the final MRSA report is referred to all Nottinghamshire Patient Forums to highlight the role that they may wish to play in monitoring the cleanliness of hospitals.

Cllr Jim Napier
Chair of the Health Select Committee

Background Papers available for Inspection:

None.

APPENDIX A

NOTTINGHAM CITY HOSPITAL - MRSA STRATEGY CHART