Preparedness for SARS in the UK in 2003

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Severe acute respiratory syndrome (SARS) has been described as the first major emerging infectious disease of the twenty-first century. Having initially emerged, almost unnoticed, in southern China, it rapidly spread across the globe. It severely tested national public health and health systems. However, it also resulted in rapid, intensive international collaboration, led by the World Health Organization, to elucidate its characteristics and cause and to contain its spread. The UK mounted a vigorous public health response. Some particular issues concerned: the practicalities of implementing exit screening had this been required; the likely efficacy of this and other control measures; the legal base for public health action; and the surge capacity in all systems should the disease have taken hold in the UK. We have used this experience of 2003 to inform our preparation of a framework for an integrated, escalating response to a future re-emergence of SARS according to the levels of disease activity worldwide. Recent cases confirm that SARS has not 'gone away'. We cannot be complacent about our contingency planning.

Keywords: SARS; preparedness; surveillance; control; Department of Health

1. INTRODUCTION

The UK had very few 'probable' cases of SARS; nonetheless it was required to mount a vigorous response, which required the transfer of people away from their normal work for up to several months. It was perhaps a more severe test than it might otherwise have been, given that the international epidemic occurred at a time of great structural change within the health protection community nationally, regionally and locally. A major change was the establishment of the HPA, which was set up on 1 April 2003. It brought into one central Agency existing health protection bodies, such as the Public Health Laboratory Service, and incorporated local consultants in communicable disease control into its local health protection teams. SARS might be considered something of a baptism of fire for the entire Agency.

2. ORGANIZATION AND COORDINATION

Valuable lessons have been learned from the international community. For example, strong central leadership and organization was essential, particularly when local transmission of SARS had become established in a country.

In addition, it was important to have, alongside those involved in the day-to-day response, a separate team to be able to take one step back and think through the 'what if' scenarios.

During the epidemic, it rapidly became apparent that all interests were affected in some way or another. In the UK, the Department of Health led from a policy perspective and politically, with the HPA coordinating the

operational public health response. The Cabinet Office Civil Contingencies Secretariat coordinated the response of other Government Departments.

3. SURVEILLANCE

The UK is fortunate in having one of the best health protection systems in the world, and effective surveillance was rapidly instituted. However, a gap was identified in not having a robust, integrated, real-time database for national and local use for all the data gathered. The HPA is developing such a database.

4. LABORATORIES

The HPA national reference laboratory played a major role.

One issue that had to be addressed was that of staff protection. Appropriate containment and safety measures were necessary for handling the virus and clinical samples. During the acute phase of the outbreaks, the matter was urgently referred to the Government's independent expert group, the Advisory Committee on Dangerous Pathogens, which provided advice accordingly.

In a large outbreak in the UK, when additional diagnostic capacity would be required, the Agency would be able to call on its other laboratories, which have appropriate safety measures in place and experienced staff.

The UK experience has demonstrated the need to keep a national register of those laboratories handling the SARS virus. This is in line with the recommendation of the WHO.

5. HEALTH CARE

There is a need to ensure rigorous infection control from the first suspicion of SARS through all stages of

One contribution of 15 to a Discussion Meeting Issue 'Emerging infections: what have we learnt from SARS?.'

health care until the diagnosis excludes SARS or the patient recovers and is discharged.

At the time of the international outbreaks, the Chief Medical Officer issued regular updates to health care professionals, detailing and stressing the importance of infection control in the health care setting. The Chief Medical Officer's network can communicate public health alerts to all medical practitioners very quickly indeed.

In both public health and health care systems, the availability of surge capacity is an important element. This is another area where contingency planning is vital.

6. PUBLIC HEALTH CONTROL MEASURES

Inevitably, there will be a lack of firm evidence for action as a new infection emerges. There is likely to be considerable uncertainty, and the appropriate precautionary approach must be taken. Modelling has an important part to play here.

The Secretary of State for Health made his statement on SARS to the House of Commons on 28 April last year (House of Commons Hansard 2003). He went through actions that had been taken, including: providing accurate information to the public and the health service; putting in place high-quality public health surveillance; and laying down requirements for management of patients to reduce risks of cross-infection. There were calls in some quarters to make SARS a notifiable disease. However, having looked very carefully at the issues, it was concluded that statutory notification would not have helped at the time in finding out about new cases of the disease more rapidly. Nevertheless, this and the other legal issues are kept under review, with expert medical and scientific input where necessary.

The WHO made some clear recommendations for action, not least to try to reduce international movement of people possibly infected with SARS. Screening of travellers was recommended, although there are different schools of thought on the usefulness of the various types of screening in protecting public health. The WHO has drawn together an expert group to evaluate the available data and look further at potential control measures. The UK is playing an important part in this work.

7. UNDERPINNING WORK AND RESEARCH

The HPA was asked to convene a high-level expert group. It reviewed evidence, examined various scenarios, identified gaps in knowledge and advised the Department of Health.

In addition, there was intensive, international collaboration on research, to which the UK made a major contribution.

This is a critical part of the resources that can be mobilized.

8. COMMUNICATIONS

As always, proper communication is of major importance. There is an insatiable need for information and a need for extensive guidance to a wide range of interested groups: within Government, the public, embassies abroad, the media, health professionals, travellers, schools and particular community groups.

Information can be promulgated in various ways, depending upon the audience. These include Web sites, NHS Direct and more traditional methods. Whichever method is adopted, it is important that messages are consistent and agreed at all levels by the key interested parties.

9. INTERNATIONAL

The UK is well placed to be able to release experts to join the international response. The WHO was pleased to receive additional UK support, specifically to help with SARS.

However, this is fragile and, unfortunately, with the limited number of experts available, this could be increasingly difficult if the UK were more severely affected itself.

10. CONCLUSION

Recent cases confirm that SARS has not 'gone away'. We cannot afford to be complacent, and we are not. Our contingency plans are dynamic documents that are reviewed on a continuous basis. We have tried to use the experience of 2003 to inform our framework for an integrated, escalating response to any re-emergence of SARS, according to the levels of disease activity worldwide. Although this framework specifically addresses the UK response to SARS, many of the issues are common to other serious or epidemic infectious diseases, and we will capitalize on this as much as we can in our wider emergency preparations.

REFERENCE

House of Commons Hansard 2003 House of Commons Hansard, 28th April, vol. 404, columns 39–41.

GLOSSARY

HPA: Health Protection Agency

SARS: severe acute respiratory syndrome

WHO: World Health Organization