Notification of infectious diseases by junior doctors in accident and emergency departments

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Abstract

Objective—To assess the knowledge about notifiable infectious diseases by accident and emergency (A&E) senior house officers.

Methods—A telephone questionnaire of senior house officers was carried out over a one week period at the end of their six month attachment in A&E departments in Northern Ireland.

Results—81 (91%) of the senior house officers participated in the study; 23 (29%) realised that the doctor diagnosing the notifiable disease had a statutory duty to notify that disease; nine (11%) were aware there were three statutory lists in the United Kingdom. Knowledge about which infectious diseases require notification varied from 79/81 (98%) for meningococcal disease to 15/91 (19%) for methicillin resistant *S aureus*. Seventy nine (98%) of the doctors thought that a poster displayed in the A&E department would be helpful. There was no significant difference between duration of qualification and performance on the questionnaire ($p = 0.2$).

Conclusions—Despite varying experience, junior doctors in A&E do not know which infectious diseases are notifiable by statute. They felt that it would be helpful to have a poster in the A&E department listing the notifiable diseases of that region. To encourage accurate reporting, inter-regional variation between the statutory lists should be abolished and replaced by one nationally agreed list.

(J Accid Emerg Med 1998;15:102-104)

Keywords: notification of infectious disease; junior doctors

"Over the past 20 or 30 years we have become complacent. Advances in medicine have meant we no longer fear the infectious diseases that once killed a majority of our people"

Dr L Moonie MP

Mr S Galbraith MP

Sunday Post; 19 January 1997

The recent outbreak of *E coli* O157 in Scotland has re-emphasised the lethal potential of infectious diseases. Infectious diseases require rapid diagnosis with early and accurate notification.^{1 2} Notification is complicated by the multiplicity of statutory lists (England and Wales,³ Scotland,⁴ Northern Ireland,⁵ and Irish Republic⁶). There are 24 infectious diseases common to all of the lists. However,

each list contains slightly different notifiable diseases. (table 1).

Public health statistics rely on all doctors notifying infectious diseases.² The aim of our study was to assess awareness about the notification of infectious diseases by junior doctors working in accident and emergency (A&E) departments.

Methods

A telephone survey was performed over a seven day period. This included senior house officers working in all of the A&E departments in Northern Ireland. They were telephoned by the authors without prior warning. A questionnaire (fig 1) was read out verbatim and the answers recorded. Any doctor declining to take part was excluded. Doctors on annual or sick leave during the week of the survey were also excluded.

Results

There are 19 A&E departments in Northern Ireland, of which three are specialised units (for ophthalmic problems, ear/nose/throat, and paediatrics). In the six months ending 31 January 1997, 89 senior house officers were employed in these departments. Eighty one (91%) of these answered the questionnaire. Seven were on annual/sick leave and one doctor declined to participate.

Only nine (11%) were aware there were three different statutory notification lists in the United Kingdom. Twenty one (26%) thought there was only one list, but others suggested there were up to 25 lists.

The ability of the doctors to identify which diseases required notification varied from 79/81 (98%) for meningococcal disease to 15/81 (19%) for methicillin resistant *S aureus* (MRSA) (table 2).

There were 23 senior house officers (29%) who were aware that the doctor diagnosing the infectious disease had a statutory duty to notify that disease. Of the other doctors, 37 (46%) did not know whose responsibility it was, nine (11%) would tell the nurse in charge, seven (9%) the infection control nurse, two (2%) the A&E consultant, and two (2%) would have informed the infectious diseases unit or the public health department.

There were 14 doctors (17%) who did not know how to notify an infection. The official notification form would have been used by 13 (16%) of the doctors, 15 (19%) would have telephoned the public health department, five (6%) would have written to the public health department, and 13 (16%) would have used the infection control nurse. The remainder

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Accepted for publication
24 September 1997

Table 1 Notification of infectious diseases

Scotland	Northern Ireland	England and Wales	Irish Republic
Anthrax	Anthrax	Anthrax	Anthrax
Bacillary dysentery	Dysentery	Dysentery	Bacillary dysentery
Chickenpox	Chickenpox	—	—
Cholera	Cholera	Cholera	Cholera
—	—	—	Creutzfeld-Jacob
Continued fever	—	—	—
Diphtheria	Diphtheria	Diphtheria	Diphtheria
Erysipelas	—	—	—
Food poisoning	Food poisoning GE <2 years	Food poisoning GE <2 years	Food poisoning
—	—	—	Infectious mononucleosis
Legionellosis	Legionnaires	—	Legionnaires
Leptospirosis	Leptospirosis	Leptospirosis	Leptospirosis
Lyme disease	—	—	—
Malaria	Malaria	Malaria	Malaria
Measles	Measles	Measles	Measles
—	—	—	Ornithosis
Meningococcal disease	Meningococcal septicaemia	Meningococcal septicaemia	Meningococcal septicaemia
—	Acute encephalitis	Acute encephalitis	Acute encephalitis
—	Acute meningitis	Acute meningitis	Acute meningitis
Mumps	Mumps	Mumps	Mumps
—	—	Ophthalmia neonatorum	—
Paratyphoid	Paratyphoid	Paratyphoid	Paratyphoid
Plague	Plague	Plague	Plague
Polio	Acute polio	Acute polio	Acute polio
Puerperal fever	—	—	—
Rabies	Rabies	Rabies	Rabies
Relapsing fever	Relapsing fever	Relapsing fever	Relapsing fever
Rubella	Rubella	Rubella	Rubella
Scarlet fever	Scarlet fever	Scarlet fever	Scarlet fever
Smallpox	Smallpox	Smallpox	Smallpox
Tetanus	Tetanus	Tetanus	Tetanus
Toxoplasmosis	—	—	—
TB, respiratory/ non-respiratory	TB, pulmonary/non-pulmonary	TB	TB
Typhoid	Typhoid	Typhoid	Typhoid
Typhus	Typhus	Typhus	Typhus
Viral haemorrhagic fevers	Viral haemorrhagic fevers	Viral haemorrhagic fevers	Viral haemorrhagic fevers
Viral hepatitis	Hepatitis A, B, unspecified viral	Viral hepatitis A, B	Viral hepatitis, unspecified
Whooping cough	Whooping cough	Whooping cough	Whooping cough
—	Yellow fever	Yellow fever	Yellow fever

would have relied on the A&E or medical consultant, the general practitioner, the nurse in charge, the bacteriology department, the occupational health department, or the infectious disease unit to notify the disease.

Seventy nine senior house officers (98%) thought a handout or poster in the A&E department would be useful for reference. The two doctors who felt that a handout or poster would not be useful performed poorly in the questionnaire.

Forty nine of the doctors (61%) had been qualified for two or three years (range two to 24 years). There was no significant difference ($p = 0.2$, χ^2 test) between the duration of qualification and performance in the questionnaire.

Discussion

Government health statistics rely on accurate notification of infectious diseases by doctors. This assumes that doctors, after making the diagnosis, know which infectious diseases need to be notified and how to go about the process.

Table 2 Doctors' knowledge of notifiable diseases

Disease	Correct, n (%)	Incorrect, n (%)
MRSA	15 (19)	64 (80)
Chickenpox	27 (34)	50 (63)
Measles	38 (48)	39 (49)
Influenza	61 (76)	15 (19)
Glandular fever	65 (81)	11 (14)
Malaria	69 (86)	10 (13)
Food poisoning	70 (88)	7 (8)
Croup	75 (94)	1 (1)
Tuberculosis	78 (98)	2 (2)
Meningococcal disease	79 (99)	1 (1)

MRSA, methicillin resistant *S aureus*.

Our survey showed the majority of doctors were unaware of the existence of different national lists and the list contents. They were also unsure of the practicalities of notification. This may well have resulted in underreporting of notifiable diseases from A&E departments.²

A vulnerable section of the population attending A&E departments is at increased risk of infectious diseases, including homeless people, travellers, and hostel dwellers.⁷ They either do not have a general practitioner or attend A&E departments for all their health problems.⁷ We must ensure that infectious disease are rapidly identified, treated, notified, and then followed up.⁸ It is imperative that A&E departments take responsibility when dealing with such patients. In the busy working environment they need a user friendly system for rapid and easy notification.

The spectrum of infectious diseases is changing. New diseases are appearing and old infectious diseases re-emerging. The resurgence of tuberculosis in association with HIV is well recognised.⁹⁻¹⁰ Other infections such as MRSA have become prominent since the last formal revision of the statutory list.¹¹⁻¹²

Given that the junior workforce of A&E departments is mobile, it would seem sensible to have a single agreed list of up to date notifiable diseases for the United Kingdom (ideally encompassing the Irish Republic).

Most of the senior house officers surveyed felt that a poster displayed in the A&E department containing the list of notifiable diseases in that region would be helpful.

NOTIFICATION OF INFECTIOUS DISEASES (ID) BY A&E JUNIOR DOCTORS			
NAME:			
HOSPITAL:			
GRADE:			
YEAR QUALIFIED:			
QUESTIONS			
1. WHO NOTIFIES ID IN YOUR DEPT?			
CONSULTANT			
NURSE IN CHARGE			
INFECTION CONTROL NURSE			
HOSPITAL ADMINISTRATION/CLERICAL STAFF			
GENERAL PRACTITIONER			
DON'T KNOW			
OTHER _____			
2. HOW MANY STATUTORY NATIONAL LISTS EXIST IN THE UK? ____ NO. 1 2 3 4 OTHER			
3. HOW MANY ID S DID YOU PERSONALLY NOTIFY IN THE LAST 6 MONTHS ?			
4. AT PRESENT WHICH OF THE FOLLOWING ARE NOTIFIABLE IDS			
	YES	NO	DON'T KNOW
INFLUENZA			
MRSA			
CHICKENPOX			
FOOD POISONING			
MALARIA			
TB			
MENINGOCOCCAL			
DISEASE			
CROUP			
GLANDULAR FEVER			
MEASLES			
5. HOW WOULD YOU NOTIFY AN ID? _____			
6. WOULD A HANDOUT/POSTER IN YOUR DEPARTMENT HELP? YES / NO			

Figure 1 The questionnaire used in the survey.

CONCLUSION

Senior house officers in A&E departments are unsure which infectious diseases are notifiable. A reference poster displayed in the A&E department, listing the regional notifiable diseases, would be useful.

To further encourage accurate reporting, we suggest that the national variation between the statutory lists within the United Kingdom should be abolished and replaced by one updated list.

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