AUSTRALIA Communicable Diseases Intelligence

Bulletin Number 78/19
Reporting Period 7 September 1978 to 20 September 1978

SMALLPOX IN BIRMINGHAM (CDR 78/37)

On 8 September 1978, the mother of the woman who died of smallpox on 11 September 1978, was admitted to hospital.

It has now been confirmed that she has modified smallpox but has remained well and apyrexial. She was in quarantine in her home from 24 August to 8 September and the 2 staff who carried out surveillance during this period are the only additional contacts; they are under surveillance.

Altogether, 8 contacts of the original patient have been admitted to hospital for observation but the other 7 patients did not develop smallpox.

FOOD POISONING FROM OYSTERS

Cases of oyster food poisoning are continuing to occur in Australia. Between 20 and 28 September 1978, a number of separate incidents have been reported in Melbourne and Canberra.

In Melbourne, a total of 14 people developed symptoms similar to those experienced in July after eating oysters at 2 separate functions. The source of the oysters was traced to the Georges River, these apparently being harvested just prior to the closure of the river early in September.

In Canberra, 13 cases were reported from people who had consumed both oysters natural and oysters kilpatrick at three restaurants. The oysters in this case were traced to Bateman's Bay, which is south of Sydney and unrelated to the waterways associated with the major outbreak in the middle of the year.

Efforts are being made by N.S.W. and Federal authorities to develop safeguards against the sale of contaminated oysters to the public, but knowledge of the habits of the type of virus suggested to be associated with the problem is very limited. Until more is known about the growing and harvesting conditions under which oysters can be safely produced, public health authorities in Australia will be loathe to offer a clearance to this food.

MILKER'S NODULES (contributed by the staff of Fairfield Hospital, Melbourne)

Two patients with interesting lesions were seen at Fairfield Hospital during the past week. The first, a veterinary science student, who had contact with cows, developed a single 1 cm diameter lesion with

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/2.

dark fluid at the centre, on her right index finger. A biopsy specimen was taken and examined by electron microscopy. Bacteriological investigations were negative, excluding anthrax from the differential diagnosis, the fluid at the centre of the lesion was haemorrhagic and probably of iatrogenic origin.

Three days later, a 37-year old builder, who kept a Hereford stud and had been milking cows on a friend's farm, was admitted for investigation of three raised pustular lesions, about 1 cm in diameter on his left middle finger. The lesions had been present for two weeks and pox like lesions are also present on the udders of the cows being milked.

Morphologically similar virus particles were seen by electron microscopy from both lesions - these viruses were approximately 250 x 150 nm and lozenge-shaped, with the characteristic surface markings, resembling a skein of wool, of the parapox virus genus. Two distinct clinical lesions, orf and milkers nodules, are caused by parapox viruses. Cowpox, which can also cause ulcers on the hands of milkers, is classified as an orthopox virus and is distinguishable from the parapox viruses by EM.

Therefore, virologically these lesions could be either orf or milkers nodules, but on epidemiological grounds both patients appeared to have milkers nodules.

PRODUCTION OF CDI

The following is a statement received for publication concerning the production of the CDI bulletins at present:

> "While it is laudable that Australia, like Britain and the United States, should publish a regular weekly or fortnightly report on those major infectious diseases which are currently prevalent, to be of real value the information should be reasonably complete, topical and accurate. Unfortunately in Australia there is a lack of uniformity between States as to which diseases are notified, for example bacillary dysentery (shigellosis) is not notifiable in New South Wales or Tasmania, whereas food poisoning is notifiable in New South Wales and Victoria but not in the other States! Further the mechanics of notification are cumbersome; within each State, infectious diseases are notified to the local (State) health department which later trasmits this information to Canberra. Not only is there delay but there are opportunities for errors and omissions en route.
>
> The format, layout and printing of the report could be much improved. For example, a large proportion is taken up by the section 'Viral identifications from contributing laboratories', which is a two page tabular list of viruses, apparently compiled from a World Health Organisation source. (The list includes Mycoplasma pneumoniae and 'ornithosis psittacosis' which are not true viruses). The data provided must be of limited value even for a medical virologist because the table gives no indication of the clinical significance of the isolates.

/3.

For example, many isolations of adenoviruses which are reported are probably from children who are symptomless excretors. However valuable information could be imparted if a correlation were to be made between clinical illness and virus isolation. For example, for a given fortnight the (hypothetical) results for herpes simplex isolates could read as follows:

Virus	muco-cutaneous lesions	stomatitis	encephalitis	total
herpes simplex type 1	20	7	1	28

Alternatively, and possibly preferably, the primary classification could be of infectious diseases, instead of isolates. For example, infectious disease units dealing with cases of hepatitis, or children's hospitals dealing with croup or bronchiolitis could be encouraged to notify such (clinical) infections promptly, with the virological findings to follow. In this way early notice could be given of undue prevalence.

It is also apparent that there is some degree of bias to viral as opposed to bacterial, protozoal and helminthic infections. Are not severe non-viral infections, such as meningococcaemia, bacterial meningitis, malaria and amoebic dysentery, worthy of (prominent) inclusion in the report?

David Hansman, M.B. F.R.C.P.A.
Director,
Department of Microbiology,
Adelaide Children's Hospital."

EDITOR'S REPLY

Although it is not the policy of the Communicable Diseases Intelligence to publish letters to the Editor of this nature, this article is included on the invitation of the Editor in response to criticisms previously offered by Dr Hansman.

There are two ways of collecting data on infectious diseases. The first is to sample from a constant source on a continuing basis and to use the data collected as an index of the disease incidence throughout the community. It is on this basis that all viral isolates from the contributing laboratories are reported and analysed. The alternative is to institute a notifiable diseases returns scheme in which laboratories and medical practitioners report their findings to a public health authority. Tables recording the cases reported under this scheme in Australia are included in each issue, but it is emphasised that the relationship between these figures and the true

/4.

incidence of some of the diseases in the list is very loose. Since the Federal Government has no legislative role in this area, reporting of a notifiable disease in a State is a function of individual State legislations, but attempts are made to standardize the diseases reported by the production of a recommended list from the National Health and Medical Research Council. The Council meeting in mid-October is expected to recommend a revised list of diseases to the States, and this will be published in the CDI as soon as possible thereafter.

Whilst it is appreciated that a limited number of readers scrutinize the virus data closely, the present method of reporting these isolates was adopted in consultation with the contributing laboratories, and it is considered that the tables on source tissue adequately indicate the nature of the infection. For example, in the case of herpes simplex type 1 as above, it is possible from the tables to demonstrate the percentage of genital infections compared to skin, eye or central nervous system infections. The system also permits an easy detection of a change in the incidence of a given virus in a specific geographic area. The question of a viral isolate being from a symptomless excretor, or being associated with a clinical infection could not be resolved by a national reporting system, since the definition of the pathogenicity of a given virus (or other type of microbe for that matter) is difficult. Contributing laboratories are requested to indicate whether a viral isolate was either associated with infection or taken on survey, and the computer is instructed to take survey figures into account when calculating periodic totals of actual cases reported. A large number of cross tabulations can be produced from the computer, and these will readily be supplied on request.

Dr Hansman questions the bias towards viral isolates as opposed to other pathogenic microbes. The Communicable Diseases Intelligence Scheme was, from the outset, seen as being developed progressively, with virus reporting being the first stage. This year, a second aspect was added, namely, the monitoring of salmonella isolates from humans. It is hoped that this will eventually be developed to include environmental monitoring of the salmonellas and shigellas, and thereafter, other specific bacterial and protozoal pathogens such as those mentioned in the letter will be included. The scheme cannot be expanded with the existing staffing arrangements, and this is currently under examination by the Department of Health.

The Editor welcomes suggestions on the contents or production of the CDI, although not necessarily for publication. In addition, contributions in the form of short review articles or reports of cases of clinical or public health significance would be appreciated.

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

REPORTING PERIOD 7-9-78 . 20-9-78 BULLETIN NUMBER 78/19

VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES

VIRUS OR VIRAL ANTIGEN	ICPMR (NSW)/ WVH (ACT)	RAHC (NSW)	PHH/ POW (NSW)	FAIR-FIELD (VIC)	RCH (VIC)	IMVS (SA)	STATE LAB (QLD)	STATE LAB (WA)	Total
0100 ADENOVIRUS NOT TYPED	3					2	9	1	15
0101 ADENOVIRUS TYPE 1	3	1	1	4		1			10
0102 ADENOVIRUS TYPE 2						1		1	2
0104 ADENOVIRUS TYPE 4	1								1
0105 ADENOVIRUS TYPE 5	1							1	2
0107 ADENOVIRUS TYPE 7						1			1
0119 ADENOVIRUS TYPE 19	1			1		1		1	4
0127 ADENOVIRUS TYPE 27	1								1
0199 ADENOVIRUS TYPING PENDING		1			2	2			5
0201 INFLUENZA A VIRUS	2							1	3
0203 INFLUENZA B VIRUS	21	3		21	11	3	9		68
0302 PARAINFLUENZA VIRUS TYPE 2						1			1
0303 PARAINFLUENZA VIRUS TYPE 3		1			2	3	8	4	18
0399 PARAINFLUENZA VIRUS TYPING PENDING						8			8
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)	1	2		1	11	15	3	13	46
0500 RHINOVIRUS (ALL TYPES)	1			1		1	1		4
0600 MYCOPLASMA PNEUMONIAE	15			12	3	13	17	1	61
0700 ORNITHOSIS-PSITTACOSIS				3				1	4
0800 COXSACKIEVIRUSES GROUP A - NOT TYPED						1	1	2	4
0809 COXSACKIEVIRUS A9			1						1
0901 COXSACKIEVIRUS B1	1								1
0902 COXSACKIEVIRUS B2						1			1
0904 COXSACKIEVIRUS B4								1	1
1000 ECHOVIRUS NOT TYPED							2		2
1003 ECHOVIRUS TYPE 3	1								1
1006 ECHOVIRUS TYPE 6			2			1			3
1014 ECHOVIRUS TYPE 14				1				1	2
1015 ECHOVIRUS TYPE 15	1			1					2
1017 ECHOVIRUS TYPE 17	1					1		1	3
1022 ECHOVIRUS TYPE 22			3				1	3	7
1023 ECHOVIRUS TYPE 23						1			1

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VIRAL IDENTIFICATIONS FROM CONTRIBUTING LABORATORIES-CONTINUED

VIRUS OR VIRAL ANTIGEN	ICPMR (NSW)/ WVH (ACT)	RAHC (NSW)	PHH/ POW (NSW)	FAIR-FIELD (VIC)	RCH (VIC)	IMVS (SA)	STATE LAB (QLD)	STATE LAB (WA)	Total
1024 ECHOVIRUS TYPE 24	1								1
1030 ECHOVIRUS TYPE 30				1			1	4	6
1100 POLIOVIRUS NOT TYPED	1								1
1101 POLIOVIRUS TYPE 1				1			1		2
1103 POLIOVIRUS TYPE 3				1		2	1		4
1104 POLIOVIRUS-VACCINAL STRAIN	2		1			1			4
1200 MUMPS VIRUS	3			3	1	1	9	1	18
1300 HERPES VIRUS GROUP-NOT TYPED						2			2
1301 HERPES SIMPLEX VIRUS-NOT TYPED	4	1	6		8		10	27	56
1302 EPSTEIN-BARR VIRUS (EB VIRUS)		1				2			3
1303 VARICELLA-ZOSTER VIRUS	2					1	1		4
1306 HERPES SIMPLEX TYPE 1	6	1		12		7			26
1307 HERPES SIMPLEX TYPE 2	21			4		12			37
1401 COXIELLA BURNETI				5		2	23		30
1502 PICORNA VIRUS-NOT TYPED								2	2
1513 COWPOX VIRUS				2					2
1514 MOLLUSCUM CONTAGIOSUM						2			2
1521 MEASLES VIRUS	2	1		2	7	2	1		15
1522 RUBELLA VIRUS	1			3	1		1	5	11
1532 HEPATITIS B ANTIGEN	4		13	14		6	13	8	58
1533 HEPATITIS B ANTIBODY						3		18	21
1535 HEPATITIS A ANTIBODY								10	10
1541 CHLAMYDIA A - TRIC TYPE								16	16
1556 CMV - CYTOMEGALOVIRUS			1	2	2	2	4	3	14
1562 REOVIRUS (ALL TYPES)								1	1
1562 CORONAVIRUS						1			1
1564*ROTAVIRUS	2		5	2		16	2	5	32
1599 ENTEROVIRUS TYPING PENDING					4	10			14
Total	103	12	33	97	52	129	118	132	676
* 1564-ROTAVIRUS						4			4
Ross River Virus						2	1		3

AUSTRALIA - COMMUNICABLE DISEASES INTELLIGENCE

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VIRAL IDENTIFICATIONS CATEGORISED INTO SOURCE SPECIMENS

VIRUS OR VIRAL ANTIGEN	FA	BL	NA	CS	SK	EY	UR	BR	GE	OT	TOTAL
0100 ADENOVIRUS NOT TYPED	6	3	6			1	1				17
0101 ADENOVIRUS TYPE 1	7		2			1					10
0102 ADENOVIRUS TYPE 2	2										2
0105 ADENOVIRUS TYPE 5			2								2
0107 ADENOVIRUS TYPE 7	1										1
0119 ADENOVIRUS TYPE 19						3			1		4
0127 ADENOVIRUS TYPE 27			1								1
0199 ADENOVIRUS TYPING PENDING	1		2			1	1				5
0201 INFLUENZA A VIRUS		3									3
0203 INFLUENZA B VIRUS		24	44								68
0302 PARAINFLUENZA VIRUS TYPE 2			1								1
0303 PARAINFLUENZA VIRUS TYPE 3		4	14								18
0399 PARAINFLUENZA VIRUS TYPING PENDING			8								8
0400 RESPIRATORY SYNCYTIAL VIRUS (RS)		2	44								46
0500 RHINOVIRUS (ALL TYPES)			4								4
0600 MYCOPLASMA PNEUMONIAE		61									61
0700 ORNITHOSIS-PSITTACOSIS		4									4
0800 COXSACKIEVIRUSES GROUP A - NOT TYPED	2		1	1							4
0809 COXSACKIEVIRUS A9				1							1
0901 COXSACKIEVIRUS B1				1							1
0902 COXSACKIEVIRUS B2			1								1
1000 ECHOVIRUS NOT TYPED	1		1								2
1006 ECHOVIRUS TYPE 6	2		1				1				4
1014 ECHOVIRUS TYPE 14	1			1							2
1015 ECHOVIRUS TYPE 15	1			1							2
1017 ECHOVIRUS TYPE 17	1		1	1							3
1022 ECHOVIRUS TYPE 22	3		4								7
1023 ECHOVIRUS TYPE 23										1	1
1024 ECHOVIRUS TYPE 24				1							1
1030 ECHOVIRUS TYPE 30			3	3							6
1100 POLIOVIRUS NOT TYPED	1										1
1101 POLIOVIRUS TYPE 1	2										2

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VIRAL IDENTIFICATIONS CATEGORISED INTO SOURCE SPECIMENS-CONTINUED

VIRUS OR VIRAL ANTIGEN	PA	BL	NA	CS	SK	EY	UR	BR	GE	OT	TOTAL
1103 POLIOVIRUS TYPE 3	4										4
1104 POLIOVIRUS-VACCINAL STRAIN	3		1								4
1200 MUMPS VIRUS		12	4	2							18
1300 HERPES VIRUS GROUP-NOT TYPED					2						2
1301 HERPES SIMPLEX VIRUS-NOT TYPED		2	9		22				20	4	57
1302 EPSTEIN-BARR VIRUS (EB VIRUS)		3									3
1303 VARICELLA-ZOSTER VIRUS		3			1						4
1306 HERPES SIMPLEX TYPE 1			6		11	2		1	4	2	26
1307 HERPES SIMPLEX TYPE 2					1				36		37
1401 COXIELLA BURNETI		30									30
1502 PICORNA VIRUS-NOT TYPED	2										2
1513 COWPOX VIRUS					2						2
1514 MOLLUSCUM CONTAGIOSUM									2		2
1521 MEASLES VIRUS		7	8								15
1522 RUBELLA VIRUS		9								1	10
1532 HEPATITIS B ANTIGEN		57									57
1533 HEPATITIS B ANTIBODY		21									21
1535 HEPATITIS A ANTIBODY		10									10
1541 CHLAMYDIA A - TRIC TYPE						1			15		16
1556 CMV - CYTOMEGALOVIRUS		4	6				2		2	1	15
1562 REOVIRUS (ALL TYPES)	1										1
1562 CORONAVIRUS	1										1
1564*ROTAVIRUS	32										32
1599 ENTEROVIRUS TYPING PENDING	8		3	3							14
Total	82	259	177	15	39	9	5	1	80	9	676

*1564 - ROTAVIRUS — 4 — 4

Ross River Virus — 3 — 3