

Yearly Review *continued*

On the international front this year saw Portugal and Greece/Cyprus launch their own paediatric surveillance units. Whilst INoPSU now has its own website at <<http://www.inopsu.com>>. The second INoPSU conference will be held in April 2002, and will give representatives from the Units a chance to discuss matters of mutual interest. At home other specialist surveillance units are now well established, and there is now a regular forum for these units to meet and exchange information. So as you can see the work and reputation of the BPSU goes from strength to strength and this is wholly attributable to the contribution given by members of the RCPCH give. On behalf of the investigators and the BPSU we thank you all.

Monthly Analysis

As you can see from **Table 1**, the card return is once more above 90%, though there are large regional differences. NorthEast Thames and East Anglia having the lowest response rates whilst Wales, North Scotland and Northern Ireland have the highest. Wessex is the highest returnee in England. Through regular reminders to respondents the mailing system is being examined. Checks are also making sure that those who should receive the card are doing so. It would be helpful if you could check the address details on the card, especially postcode letting the office have any amendments.

Due to the type of studies on the card this year fewer case reports have been received. One notable exception is **HIV/AIDS** whose report numbers have increased by around 20% (**Table 2**). This is primarily due to the implementation in England of a routine offer of antenatal HIV testing which has led to more infected women being diagnosed prior to delivery. So although more infants born to HIV infected women are being reported to the BPSU, an increasing proportion of them are themselves uninfected. Several cases of **congenital rubella** have also been reported in the past months, most have been error reports. Please continue to report all these, as we would prefer to discount reports due to error or duplication than not receive them at all.

And **finally** once again can we thank all those who have returned their cards this year and especially to those who have reported cases and completed the questionnaires. Here is looking to a healthy and successful New Year.

Table 1:
% Response Rate Feb-July 2001

Region	% retd	Rank (Jan-June 2001)
North	91.6	9 (6)
Yorks	87.6	8 (16)
Trent	90.6	12 (10)
EAnagl	86.4	19 (18)
NWT	91.8	8 (19)
NET	83.5	20 (20)
SET	89.9	14 (17)
SWT	91.5	11 (9)
Wessex	94.1	4 (2)
Oxford	93.7	5 (11)
SWest	89.1	15 (15)
WMids	92.6	6 (7)
Mersey	91.9	7 (4)
NWest	88.7	16 (8)
Welsh	96.8	1 (1)
NScot	95.0	2 (3)
SScot	90.0	13 (13)
WScot	88.1	17 (14)
Nlre	95.0	2 (5)
Rlre	91.6	10 (12)
Total	90.4	

Table 2:
All cases reported and follow-ups to 13/11/2001

Condition Started	I VALID	II INVALID		Not Yet Known	as % of total				
		Ia	Ib						
HIV/AIDS	1986	1535	289	354	152	2330	66	28	7
CR	1990	65	24	36	5	130	53	45	2
PIND	1997	752	130	274	46	1202	63	34	4
Enceph	1998	138	31	150	82	401	34	45	20
CVD/S	2001	104	6	23	115	248	42	12	46
VKDB	2001	2	1	1	15	19	11	11	79
Thrombosis	2001	41	7	18	37	103	40	24	36
CMV	2001	35	7	19	40	101	35	26	40
IAI	2001	12	8	12	9	41	29	49	22
Total*		2684	503	986	506	4807	57	32	11

* All data is provisional & continually being updated

Key to table / abbreviations

I	= confirmed/already known	IIa	= duplicate
IIb	= reporting error or revised diagnosis	III	= status not yet reported to BPSU by investigator

AIDS/HIV	Acquired Immunodeficiency Syndrome / Human Immunodeficiency Virus
CR	Congenital Rubella
PIND	Progressive Intellectual Neurological Degeneration
VKDB	Vitamin k Deficiency Bleeding
Enceph	Encephalitis in children (2-36months)
GBS	Group B streptococcus disease
CV/S	Cerebrovascular disease/stroke & like illness
CMV	Congenital Cytomegalovirus
IAI	Internal abdominal injuries due to child abuse in children under 14 yrs

BPSU

Quarterly Bulletin



Royal College of Paediatrics and Child Health

The British Paediatric Surveillance Unit (BPSU) is part of the Research Division of the Royal College of Paediatrics and Child Health

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BPSU to host second INoPSU conference

Following the successful inaugural conference of the International Network of Paediatric Surveillance Units (INoPSU) in Canada in June 2000, the British Paediatric Surveillance Unit has the honour of hosting the second INoPSU conference. Under the heading International Rare Disease Surveillance in Practice the conference will be held on the 14-15 April 2002 at York.

The conference is being held to discuss the organisational structure of the Network and to develop a strategy for future multi-national projects. To this end, representatives from the existing national paediatric surveillance units have all been invited. An open session on the morning of Monday 15th April aims to present work produced by the INoPSU. This will directly precede the first plenary session of the RCPCH scientific meeting and qualifies for CPD points. The session is open to anyone who wishes to attend, (£62 for college members, £77 otherwise) being **free** to those registering for the RCPCH plenary session that afternoon. Paediatricians, public health physicians, microbiologists, researchers and policy makers in the field of child health should find the presentations of interest.

Topic titles to be discussed in the open session include Is inflammatory bowel disease on the increase?; *Haemophilus b* vaccination strategies - is their need for a booster? Is there any danger associated with MMR vaccination? Reducing the risk of mother to child transmission of HIV worldwide; Cerebral oedema following DKA; vCJD in UK children - implications for the world. European Organisation for Rare Diseases - A parental support perspective. Speakers involved include Professor Bhupinder Sandhu; Dr Jodie McVernon (Oxford Vaccine Group), Dr Elizabeth Miller (PHLS), Professor Marie-Louise Newell (Institute of Child Health, London), Dr. Sarah Muirhead (Canadian Surveillance Programme); Dr Chris Verity; and Ms Carol Youngs (Contact a Family). During the course of the RCPCH conference, there will be presentations from Professor Rudi von Kries (Germany) on vitamin K and from Professor Elizabeth Elliott (Australia) on the global perspective of haemolytic uraemic syndrome epidemiology.

Further information including details on registration and fees are available from the RCPCH Academic Department, 50 Hallam Street, London W1W 6DE.
Email: amanda.leighton@rcpch.ac.uk or richard.lynn@rcpch.ac.uk.

New BPSU website launched

This autumn saw the launch of the newly re-developed BPSU website <<http://bpsu.inopsu.com>>. A big thanks should go to Gabrielle Williams of the Australian Paediatric Surveillance Unit who has made this possible.

Whilst easy to navigate the site contains all the basic information on the BPSU including its history, methodology, studies and reports. For those wishing to undertake a survey through the BPSU there are instructions on the criteria for application and detailed guidelines. The section on completed studies includes details on when and by whom the project was undertaken and hyperlinks to the definitive published paper, or abstract. There is also a link to the appropriate parent support group.

The section on current studies outlines the project and the reporting criteria. Via the publications section you can link to the BPSU Annual Report and the Quarterly Bulletin as well as recently published articles associated with the BPSU. Importantly, the site contains the BPSU's current position on ethics and confidentiality in relation to surveillance.

Over time, we hope to develop the site further and would appreciate your feedback.



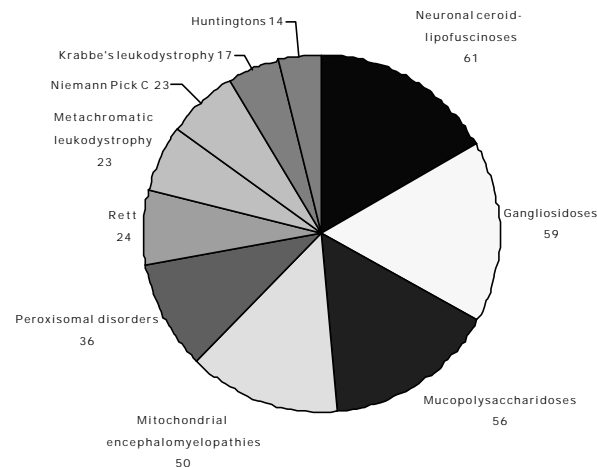
Study News

The investigators undertaking the **Progressive Intellectual Neurological Degeneration (PIND)** survey report: Variant Creutzfeldt-Jakob disease (vCJD) remains a major public health concern reflected by the fact that providing advice on transmissible spongiform encephalopathies (TSE's) is one of the eight key targets of the Public Health Laboratory Service's (PHLS) five-year plan. Now into its fifth year, surveillance PIND and the resulting investigation into the development of vCJD in children is yielding valuable information about the presentation and clinical course of the disease in children in comparison to adults, and identifying possible risk factors. This in itself is strong justification for continuing PIND surveillance. However, the other important aspect of this surveillance is the gathering of ever-expanding data on childhood progressive neurodegenerative disease in the UK. The demography of PIND, which includes diagnosed cases and those that may always remain undiagnosed, has important implications in terms of policy, resource allocation and service provision.

The PIND Expert Group, which includes six paediatric neurologists, still meets quarterly in London. To date **1218** children have been reported to the study of which the Group members have now discussed **913** anonymised clinical summaries and continue to be a lively and solid support system in classifying PIND cases and providing a valuable overview and opinion through their wealth of combined expertise and knowledge.

Of the 913 cases discussed by the Group, **513** have a confirmed PIND diagnosis of one of 90 neurodegenerative conditions reported. **6** have vCJD (see later). **42** children are classified as "idiopathic" PIND. They form a clinically heterogeneous group and have been thoroughly investigated or have died without reaching a diagnosis. On close examination, none of this group has vCJD or a disease resembling vCJD. **183** cases are included as PIND at this stage but are currently undiagnosed and still under investigation. None of these cases appear to have vCJD either. **169** cases discussed by the Group did not fulfil the criteria for PIND - a few of these were on first discussion, but the vast majority was on the basis of follow-up information reporting an improved or non-progressive clinical state. **268** were "No Cases" from the outset (reporting errors, multiple notifications, not meeting criteria) and **37** are currently outstanding.

The ten most commonly occurring confirmed PIND diagnoses



Six cases of vCJD have been included in the study and two of these have been reported in the last six months. All developed symptoms before age 16 years and were suspected of having vCJD when notified to the study. The youngest reported case was only 12 years of age at the onset of her disease. Four have died and neuropathology carried out by the National CJD Surveillance Unit confirmed the diagnosis of vCJD in all four. The clinical presentation of all these children is similar to that already described in older patients with vCJD. All 6 had psychiatric symptoms (anxiety, euphoria, depression), cognitive symptoms (memory loss, deteriorating school performance), neurological symptoms (ataxia, coordination problems, paraesthesiae) and neurological signs (ataxia, myoclonic jerks, abnormal movements, impaired vertical eye movements). They also all had bilateral pulvinar high signal on T2 magnetic resonance imaging, were negative for mutations of the PrP gene (inherited CJD), and were all methionine homozygous at codon 129 of the PrP gene (as in all other confirmed cases of vCJD that have been tested).

In conclusion:

- vCJD remains high on the public health agenda in this country and, increasingly in the global context as 4 vCJD cases have been identified in people living outside the UK and BSE has been found in cattle in 15 other countries.
- Six children with vCJD have been reported to the study. Two of these were reported in the last six months, so the emergence of more childhood cases remains a strong possibility.
- In the light of an unknown incubation period and questions surrounding possible modes of transmission, a longer surveillance period is warranted in order to accurately monitor and document the emergence of vCJD in children.
- Despite the difficulties in diagnosing diseases that cause PIND, the study continues to show that thorough investigation, a high diagnostic rate and comprehensive care of children with PIND is being carried out by local clinicians.
- **Please continue telling us about all your diagnosed and undiagnosed cases of PIND - even if you are unsure as to whether they strictly fulfil the criteria.**

First contact: Ms G. Devereux, Research Nurse; Mrs L. Stelitano, Research Administrator, c/o Paediatric Administration Office, Box 45, Addenbrooke's NHS Trust, Hills Road, Cambridge, CB2 2QQ Tel: 01223 216299 Fax: 01223 586508 Email: gilliandev@yahoo.com

Study News

As the survey on **cerebral vascular disease/stroke and like illness** comes to an end the investigators report: "With 11 months of this Stroke Association funded study completed we would like to thank all those BPSU members who have notified us of cases. So far we have received over 270 referrals. This includes five cases of Vein of Galen and four of Sturge Weber. After taking incorrect referrals and duplications into account this brings our total to 223 cases to date. This provides an estimated incidence of 2.475 cases per 100,000 per annum and a calculated yearly estimate of 297 cases, which is in line with the Birmingham pilot regional study.

Our six month questionnaire set up to specifically examine the issue of early recurrence has identified four cases, which is most encouraging as this opens a potentially useful therapeutic window. There have been seven deaths. The BPSU has identified 200 (86%) of the cases and this percentage should rise still higher when further information from the ongoing parallel surveillance is received. Our intention is to send out a final questionnaire after one year to see how the patient has fared and to look at later recurrence.

We hope this data will provide the groundwork for the appropriate development of child health services in the UK and Eire as well as laying the foundation for later interventional studies."

For further information: Dr A.N. Williams, Institute of Child Health, Birmingham Children's Hospital, Steelhouse Lane, Birmingham B4 6NH. Tel: 0121 3338704. Email: anw@doctors.org.uk

Dr John Tripp co-investigator of the **Vitamin K Deficiency Bleeding** survey reports on the first seven months of surveillance: "Between January and July 13 notifications were received of which two were duplicate reports. One of these reports remains outstanding with no data received from the reporting clinician. Two further reports are considered by the investigators to be non-cases and two doubtful. Thus six cases are reported which appear to be confirmed cases of Vitamin K Deficiency Bleeding. Three fulfil international criteria though two are less than seven days old (one of each) and therefore are not cases of late onset Vitamin K Deficiency Bleeding. The others range in age from 17-125 days. Of the six confirmed cases all were term. Three presented with bruising, one with a nose bleed in addition; two had GI bleeding and one presented with pulmonary haemorrhage. Two had had no Vitamin K Prophylaxis, three had had oral Prophylaxis and one intramuscular Prophylaxis. Reasons for departure from Unit Protocols were parent refusal, confirmed in two cases and uncertain in two further cases. Notifications received since August (6) remain outstanding without any completed data being received from reporting clinicians at present.

Discussion: Numbers reported are of the same order of magnitude as in the previous two surveys i.e. between 10 and 20 per annum confirmed cases. Methods of Prophylaxis varied widely across the country but parental refusal of Vitamin K Prophylaxis is an increasingly common precursor to presentation in Vitamin K Deficiency Bleeding.

It is hoped to mount a further survey of Vitamin K Prophylaxis for prevention of this condition as was carried out in association with the two previous BPSU surveys and we hope that Units will collaborate with us in returning data about the policy.

For further information contact Dr John Tripp, Royal Devon and Exeter Hospital, Barrack Road, Exeter EX 2 5DW. Tel. 01392 402676

Yearly Review

Once again we have reached the time of year when it is traditional to look back over the year's activities. During 2001 the BPSU Executive Committee met seven times to discuss surveillance proposals and applications. Several changes to the committee membership were seen this past year. Long-standing members, Professor Brent Taylor, Dr Chris Kelnar, Dr Angus Clarke have all stepped down, the Unit has benefited greatly from their input. Dr Chris Verity, BPSU chair for the past six years has also stepped down. Chris's drive and commitment in developing the Unit over these years has been immense. Professor Mike Preece (Institute of Child Health, (London) has now taken over as chair of the Unit and is joined on the committee by Dr Alan Colver, Dr William McGuire, Dr Mark Richardson and Ms Carol Youngs, Assistant Director of Contact a Family, who will represent parent and carers. Dr Hiliary Kirkbride of the PHLS takes over from Angus Nicoll as medical adviser (infectious disease), however Angus will remain on the committee as PHLS representative. Dr Simon Lenton takes over from Dr Roderick MacFaul as the DH observer.

Of the studies, eight are currently being undertaken. Five studies ended, haemolytic uraemic syndrome, group b streptococcal disease, encephalitis in early childhood, Reye's syndrome and SSPE. The latter two having been on the card since 1986! Five studies commenced in 2001, i.e. vitamin K deficiency bleeding, cerebral vascular disease/stroke and like illness, cytomegalovirus, thrombosis in childhood and internal abdominal injury due to child abuse. This year there have been nine general study enquiries, six phase one applications and four full applications were considered, two of which, severe complications of varicella and fatal adverse drug reactions have been provisionally approved. This level of enquiry is slightly down on recent years and we would encourage all to speak to the BPSU scientific coordinator, medical advisers or committee members if they feel they have a suitable project. Guidelines for applying are also on the BPSU website. Financially, the Unit with DH funding should be secure until September 2004. Though as a consequence of this arrangement, fees for surveys have risen for the first time in three years: £7,000 for those receiving grants from major grant giving bodies; £3,600 for projects seeking local funding.