



West Yorkshire Health Protection Team Newsletter Nov 2015

NOIDS in Wakefield

The reporting pathway for NOIDS – Notification of Infectious Diseases – has changed in Wakefield. Clinicians have a statutory duty to report that they believe their patient has a notifiable condition, such as measles. Nominally this is to the local authority, but for most cases it's PHE Health Protection Team that responds, so that's where the notification should go. This change was already successfully made for Bradford last year, and then recently for Leeds and Kirklees. Wakefield switched on Mon 2 Nov and we plan to switch Calderdale early next year. There's no change to reporting by labs, which is mostly automatic nowadays.

We continue to promptly inform the LA Environmental Health Dept of any reports needing their attention, eg food poisoning. We've written to Wakefield GPs and hospital clinicians with further details of their change-over. There's a new notification form to use, so please root out old versions – you wouldn't believe the obsolete addresses that such patient information sometimes gets posted to. And don't hesitate to pick up the phone if you're concerned about the patient or the system at large.

We're still at Blenheim House

West Yorkshire Health Protection Team remains based at Blenheim House, Duncombe St, Leeds LS1 4PL, at the west end of the city centre. Our daytime number is **0113 386 0300**, and our fax number is 0113 386 0306. There's no visitor parking here, the best option is West Street car park on the island of the Wellington St / A58(M) junction, between TGIF and the Ibis. It's £3 for 2 hours and £4 for five hours and you can pay by mobile phone if you're registered with Parkmobile. We're 15 minutes walk from the railway station and 30 from the bus station.

Out of hours, reach us via **0114 304 9843**, hosted by "The Contact People". Note that this is only for calls for West or South Yorkshire. For the time being there's a different number for North Yorks & Humber.

There's no geographical change in prospect, but we're now part of Yorks & Humber PHE Centre and will increasingly move to Yorkshire-wide ways of working. The out-of-hours CCDC rota is already on this basis. Nationally there are all sorts of historic anomalies around staffing and funding of health protection rotas that need rationalising. We also need to do the day job in a more consistent way across England.

Survivors of the trenches

Some 46 pupils and 4 staff from Guiseley School were admitted to hospital in Belgium when they fell ill at the end of a school trip to the Great War battlefields. There were 80 pupils and 10 staff on the trip. On Monday 21 Sept they travelled by coach from Ieper (Ypres) to Zeebrugge to take the overnight ferry to Hull, but many became ill with vomiting and diarrhoea and the group were not allowed aboard. The Belgians activated their major incident plan and dispatched them to seven hospitals across the region.



Menin Gate, Ypres (photo by Paul Hermans)

The impression was of viral gastroenteritis, because of the preponderance of vomiting. Subsequently the infection control team in Brugge confirmed norovirus, which had been common both there and here in the preceding weeks. All those affected rapidly recovered and most of the party returned on Tuesday night's ferry, reaching Guiseley midday Wednesday. A few stragglers – four pupils and two staff – flew home Wednesday.

As the party had recovered, we didn't investigate further here. They were given standard hygiene advice and those who'd been ill were advised to stay off school for a further 48 hours. You can imagine those children's groan of disappointment.

Hepatitis A in Leeds

Cases of Hepatitis A are continuing to occur across the northern part of Leeds, especially LS9. Now pupils and staff in two of the schools there have been offered immunisation.

The first family with a couple of cases were reported at the end of July, with another nearby family of four at the end of August – right in line with the average four week incubation period of Hepatitis A. We followed our standard response of emphasising hygiene (the virus spreads readily by the faecal-oral route) and immunising household contacts. But then came a few more, then a few more . . . it felt like a rising tide. The likely link was that the children played together. Hepatitis A is infectious two weeks before the onset of symptoms, and in young children it can be so mild as to escape attention.

By mid-September the tally was 20-some cases, which included children who'd never been ill but who tested positive when we checked the cases' families. School term was re-commencing, creating further opportunity for spread, and the only certainty in all this was that spread hitherto hadn't been in school.

Cases seemed to focus around a couple of streets in LS9. We decided to draw a line around these streets and offer immunisation to everyone who lived within – over 800 of them. Thanks to Leeds Community Healthcare, a couple of special clinics were laid on at the beginning of October, and about 80 children and 90 adults attended.

A good response, but it left over 600 unprotected. GPs mopped up many, and at the end of October a "health bus" became temporarily available for further community sessions. These reached a further 60 children and 70 adults.

Yet cases continued to occur – in penny numbers, but in circumstances that implied spread along school networks. Given a condition with a long incubation, how long do you wait to see if your last intervention has worked? The decision was taken to immunise in two schools where the evidence was strongest, but persevere with GP and community efforts for the other school catchments. Family hygiene and immunisation remains essential, not least for those sporadic cases that have no connection with the others.

Hepatitis A was common in Britain, and most adults were immune, until the early 1990s. Incidence then dropped dramatically, presumably because of better hygiene and management of cases. People since born in the UK are unlikely ever to have had Hepatitis A so our young population are not immune. It remains common abroad and many cases are travel-related.

Better than we thought?

Early measures of last winter's flu vaccine suggested very poor efficacy. But later in the season, the prevalent flu strains were better aligned to the vaccine, so the overall efficacy came in at 34%.

Flu vaccines are always based on the strains circulating 12 months ago. The injected (non-live) vaccine for adults has three components: A(H1N1), A(H3N2) and B. Fluenz Tetra, the live nasal spray for children, has four, with two B components. For much of winter the main cause of flu was A(H3N2) that was well drifted on the flu of 2013/14, so the vaccine offered scant protection. But coming into spring, the main virus became flu B well-matched to the vaccine. We hardly saw any A(H1N1), and what little there is remains similar to the pandemic strain of 2009 – so after six years both natural and vaccine immunity to it are high.

The estimates of efficacy are based on 2931 people seen in primary care last winter with flu-like illness, and are in line with estimates from elsewhere in the northern hemisphere winter. Usually the early estimates are a fair prediction of the final but sometimes, like election polls, they miss.

Last year Fluenz Tetra was offered to children aged 2, 3 and 4, and there were also pilot programmes of both primary and secondary school children. Long term, as this programme expands to all children aged 2 to 18, it's expected not only to protect them but to also to confer indirect "herd" protection on the elderly. There are signs that this is beginning to happen in the primary school immunised areas, but not yet in the secondary-only areas.

Professor Paul Cosford, PHE's Director for Health Protection and Medical Director, acknowledged that 34% was towards the low end of the 25% to 70% efficacy range of recent years. "Whilst it's not possible to fully predict the strains that will circulate in any given season, flu vaccination remains the best protection we have against an unpredictable virus which can cause severe illness and deaths each year among at-risk group. These include older people, pregnant women and those with a health condition, even one that is well managed."

This year's flu has not yet declared itself, which is lucky since there's been a supply glitch. There's no safety concern, but a large batch of Fluenz Tetra was below standard on potency and couldn't be released. That blew a hole in the logistics of the programme, but fortunately the manufacturer Astra Zeneca had other good stock intended for the USA, where it's marketed as FluMist. So that's been switched into NHS supply and is the identical vaccine. This meant a hurried tweaking of PGDs, which had referred specifically to Fluenz Tetra rather than generically to LAIV. Also UK patient information leaflets had to be inserted; the FluMist leaflets are required to be written in US legal-speak, so NHS users should discard these with relish.

Reference: The efficacy reports, by PHE's Richard Pebody and colleagues, were published online in Eurosurveillance on 10 Sept (primary care study) and 1 Oct (school study).

Explainer: Cipro for meningitis contacts

You won't catch meningitis from being close to a case. Yet day upon day we hassle hospital doctors and GPs to prescribe antibiotics to some contacts, and chide them for issuing it to others. What's all that about?

Some 5-10% of adults and 25% of adolescents carry the meningococcus in their nasopharynx, and come to no harm. If it's going to become invasive, it will usually do so in the first few days after colonising, then the risk dwindles away to background – either the person has developed immunity or the bug was non-invasive. But the bug will remain carried for an average of 18 months, being coughed and shared with other people, who in turn come to no harm, but who cough and share it with others . . . somewhere along the line, somebody is really unlucky.

So that unlucky person probably became colonised with a new meningococcus in the last few days; therefore their close contacts have likewise recently acquired it. These contacts may also share genetic make-up and lifestyle risks, as well as an environment in which the bug recycles. We know it to be an invasive and virulent strain, just look what it's done to the case.

The increased relative risk for those close contacts is of the order of 1000-fold: from a background rate of 2 cases per 100,000 population per year, to a 2% absolute observable risk. We can halve that risk by antibiotics to eliminate nasopharyngeal carriage: no-one's ever going to do an RCT, but there's the natural experiment whereby some people happen to receive antibiotics and some don't. So a reduction from 2% to 1% gives an NNT - Number Needed to Treat - of 100. For a simple safe intervention against a dangerous disease, that sounds reasonable.

We regard the person as infectious from 7 days before symptoms, to 24 hours after starting effective therapy. We define "close contacts" as those living with or staying overnight in the same household during that period. This includes anywhere the case stayed overnight. We also include close kissing, and heavy unprotected respiratory exposure in health care, but NHS staff are seldom at risk.

The risk to looser contacts such as schoolmates or workmates is harder to define, but is probably tenfold less. They'd be worried if they realised they were at 100-times greater risk, but that only equates to 0.2% absolute risk, way below the residual risk of the treated household, and doesn't leave much scope for benefit. NNT = 1000, anyone? It doesn't seem a good idea.

The question that comes before any of this is: how likely is the case to be meningococcal? This is the commonest cause of overwhelming infection in a

young person, so if it looks clinically probable, we recommend antibiotics for close contacts. If it's just one of several possible diagnoses, we recommend holding off, even if the case is being treated blind with broad-spectrum antibiotics. Likewise hold off if meningococci are non-invasive, eg in sputum.

Our usual recommendation is a single dose of ciprofloxacin, 500 mg for people over 12 (and 250 mg for 5-12, and 125 mg for 1 month to 4 years, these ages being off-label). It's simple and safe even in pregnancy and readily available in pharmacy. If the household are gathered at the patient's bedside, it will greatly speed things up if the hospital can issue that night; otherwise we'll arrange it next morning with the GP.

This low dose will eliminate carriage and that is all it will do – it wouldn't halt an incubating disease, so we refer to it as prophylaxis not treatment. Contacts need to be aware of this and of their residual risk, and advised to seek medical care promptly if they develop symptoms.

The whole contact group and the case should receive Cipro to prevent the bug recycling, but the benefit wanes after a few weeks. If the bug is one of the conjugate vaccine preventable strains, A C W or Y, then we also recommend Quad vaccine for longer protection. The conjugate vaccines have a rapid and powerful effect against carriage. The response is very much slower to Bexsero, against Men B. It is not a conjugate vaccine and its effect on carriage is not yet quantified, so for the time being we don't recommend it for contacts.

Roll on the day when immunisation protects all age groups against meningitis and other invasive forms of meningococcal disease. Barely 2% of all cases arise in "contacts", so offering antibiotics does nothing to prevent the 98% that are index cases in their household.

2 million suffer FGM each year

2,000,000 girls and women suffer Female Genital Mutilation each year worldwide. Their immediate risk is from bleeding, sometimes fatal. They also incur infection directly from the procedure (wound infection including tetanus and gangrene, and bloodborne viruses), and indirectly long-term through the damaged anatomy (eg recurrent UTI and pelvic infection).

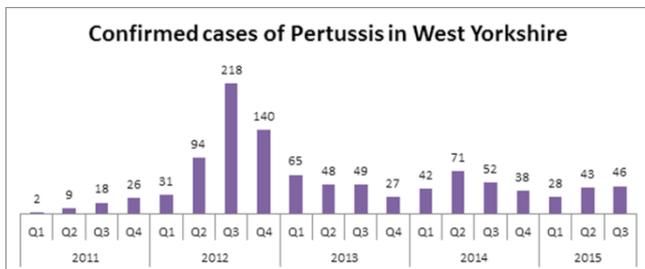
It's difficult to estimate numbers in this country, where FGM has been illegal since 2003. (It's equally illegal if done abroad, or to take a girl abroad with the aim of FGM.) Dept of Health estimate that 66,000 women here are living with the long-term consequences, and that 20,000 girls under 15 are at risk each year, by living in communities that often practise FGM. Since Oct 2014 there has been statutory reporting by midwifery units. From Nov 2015 all health professionals have a legal duty to report FGM if they encounter it in their patients. If in doubt, discuss with your local safeguarding lead.

The issues are discussed in a new book by Hilary Burrage: "Eradicating Female Genital Mutilation: a UK perspective", published by Ashgate on 4 Nov 2015.

Cough? Maybe pertussis?

Pertussis (whooping cough) is picking up again in West Yorkshire, with 117 cases confirmed this year to end of September. Now doctors are being reminded to consider and test for pertussis in anyone with unusual or unexplained cough, even in fully immunised adults. Please report suspected cases without waiting for lab confirmation.

Particularly suspect pertussis if a new cough has dragged on for more than two weeks, and there are paroxysms of coughing followed by vomiting, or with the typical inspiratory whoop. In infants the main sign may be apnoeic attacks. Another indicator is recent contact with other likely cases.



It's important to exclude children with pertussis from school or nursery – for 48 hours after starting antibiotics, or for 21 days since onset of symptoms if untreated. Clarithromycin is the preferred antibiotic (adult dose 500 mg twice a day for 7 days), but in pregnancy or breast-feeding use erythromycin. Asymptomatic contacts need not be excluded, but should receive prophylactic antibiotic if they are not recently immunised and are in a risk group: infants, women over 28 weeks pregnant, and those working or sharing a household with unimmunised infants. The prophylactic and treatment doses are identical.

Best confirmatory test in the first couple of weeks is a nasopharyngeal swab (not throat or anterior nasal swabs), while the *Bordetella* bugs are still numerous. But many patients won't consult the GP until they find the cough dragging on, so after a couple of weeks try serology or salivary fluid. We'll post salivary kit to cases aged 5 to 16 who haven't been immunised in the last year – it's an IgG test that doesn't distinguish infection- and vaccine-derived immunity.

The continuing prevalence of pertussis means that it's still important to immunise pregnant women – ideally between 28 and 32 weeks gestation but at a pinch up to delivery. This will protect the infant until its own pertussis jabs take effect, but it was never designed to reduce prevalence. The question remains whether there should be any change to the routine NHS schedule, such as a booster for school-leavers. Currently the last dose against pertussis is given with the pre-school booster, and since that's now delivered at 3½, immunity is waning by adolescence.

So it's goodbye from us

This is the last issue of this newsletter. The current editor Dr Graham Sutton is retiring, we're facing cutbacks and need to prioritise, and something has to give. West Yorkshire, the newsletter's focus, is now part of Yorks & Humber PHE Centre; and the style in these pages has always been distinct from PHE's corporate communications, which we appreciate you'd much rather be reading.

Of course you'll still hear plenty from us, but as ad hoc targeted letters, like those we recently issued for Hepatitis A and whooping cough. One major limitation of a regular newsletter is the publication cycle. The best stories often can't be covered, as we'd risk queering the investigation. By the time the cycle comes round again, they're stale news and too late to act as an alert to the NHS.

This newsletter began as a yellow printed sheet for Leeds, issued monthly by Dr Martin Schweiger; in 2007 it broadened to West Yorkshire. In 2009 Graham became editor, publishing quarterly and only in e-form. His background was in student publications, magazine writing (eg for *World Medicine* in its Michael O'Donnell heyday) and book editorship, so he could churn out stuff like this with ease. He now intends to spend more time with the dolmuses and marshrutkas of central Asia.



Hasn't changed a bit: GCS circa 1980

However it's not quite the last you'll see of Graham. Search for google map directions to our Blenheim House offices, and drop down to street view on the adjacent Marlborough Street. And there he prowls in blazer and tan slacks, like a dybbuk lurking outside to haunt PHE.

This issue was compiled with input from Kathryn Metcalfe, Miles Denton, Andy Snell, Louise Coole, Kirsty Lockwood, Graham Sutton, and Valeska Laisnez of Agentschap Zorg & Gezondheid in Brugge. Right, that's your lot.