HSC Public Health Agency

Issue 4

Transmit

Health protection service bulletin October 2010

Foreword

Welcome to the latest edition of *Transmit*, which outlines arrangements for the blood-borne viruses and sexually transmitted infections team, led by Dr Maureen McCartney, and provides information on hepatitis C infection.

In relation to hepatitis C infection, you will find links for the quick reference guide for primary care and for the work of the Northern Ireland Hepatitis C Managed Clinical Network. There has been a rise in both acute and chronic hepatitis B since the late 1990s and as it is a notifiable disease, we are encouraging notification to the health protection duty room. I would especially draw your attention to the target groups for hepatitis B immunisation and full details of these can be found in the 'Green Book': http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_108820.pdf

I am also pleased to announce that we have now made permanent appointments to our healthcare associated infections (HCAI) team and the surveillance staff from the legacy Northern Ireland Healthcare-Associated Infection Surveillance Centre (HISC) unit have relocated to Linenhall Street. In doing so, we are building a strong team to deal with this very important public health issue.

Surveillance data in this edition indicate that we need to redouble our efforts to ensure that trusts meet ministerial targets for reductions in MRSA and *C. difficile* infections. Of note, ribotype 078 is the most common type of *C. difficile* in Northern Ireland, which is slightly different to the rest of the UK.

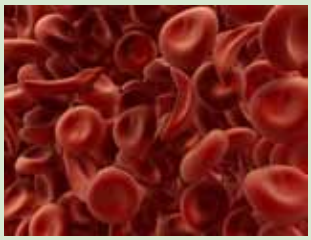
The influenza immunisation campaign was launched by the DHSSPS at the beginning of October and the influenza vaccine is now available at GP surgeries. The PHA has also started to publish the regular flu bulletin, which will continue throughout the influenza surveillance period.

As ever, we are happy to receive your comments. Please share your feedback with us by email on emma.walker@hscni.net

Lorraine Doherty

Dr Lorraine Doherty
Assistant Director of Public Health (Health Protection)

Blood-borne viruses and sexually transmitted infections team



This team is responsible for surveillance and health protection in relation to control of hepatitis B, hepatitis C, HIV, syphilis, chlamydia and other sexually transmitted infections. As these are all largely preventable by avoiding risks, and in the case of hepatitis B, by vaccination, we work with a wide range of partners to reduce the numbers of people infected and ensure good treatment.

Members of the team:

Dr Maureen McCartney, Consultant in Health Protection, team lead, hepatitis B and C: maureen.mccartney@hscni.net

Dr Neil Irvine, Consultant in Health Protection, HIV, other sexually-transmitted diseases: neil.irvine@hscni.net

Mrs Monica Graham, Consultant Nurse, health protection: monica.graham@hscni.net

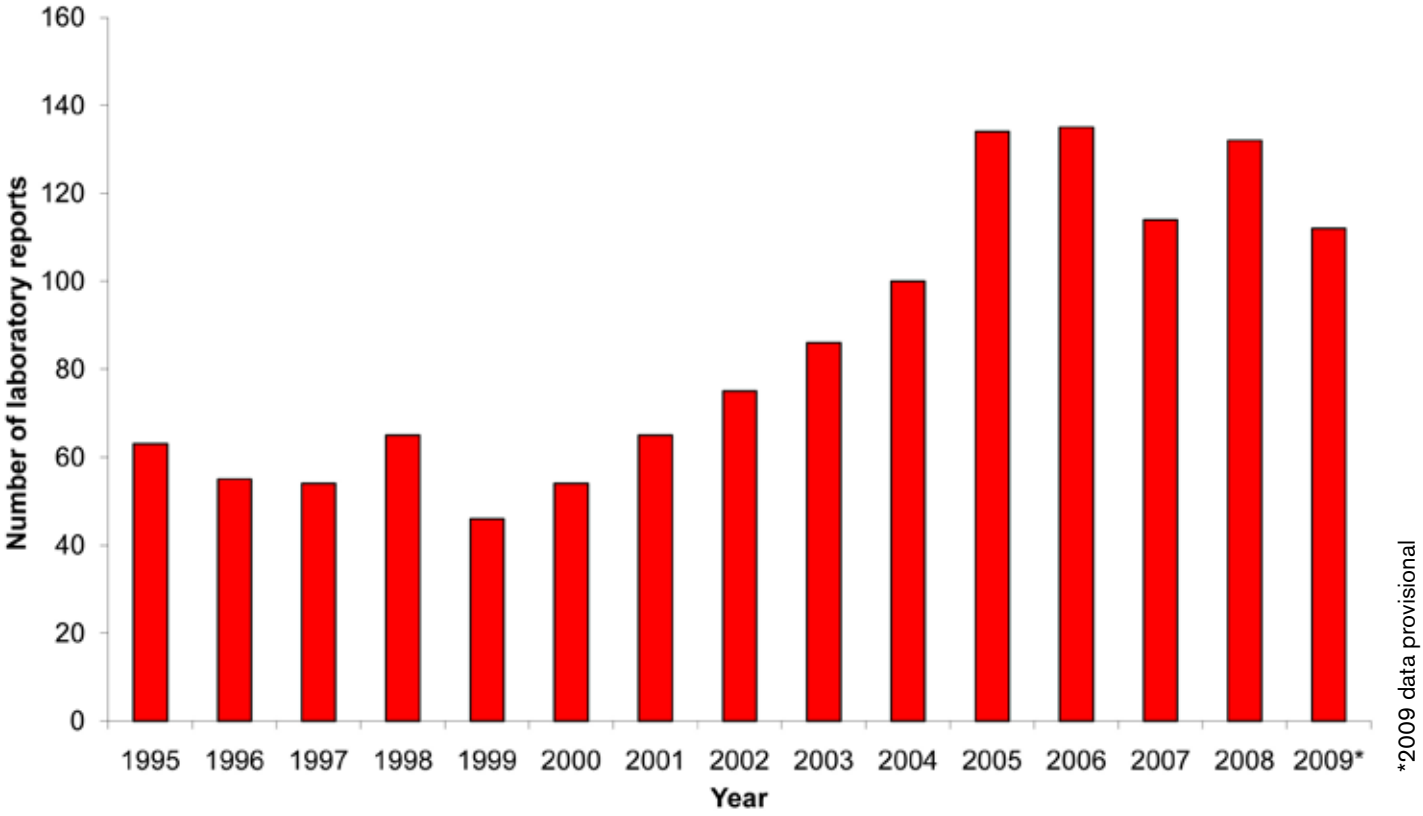
Ms Joy Miskimmons, information officer.

Ms Nicola Cunningham, information officer.

Members of the team can be contacted directly about non-urgent issues. Although individual team members have lead areas, cover is provided for all issues in the absence of the lead. Urgent issues should always be forwarded to the duty room.

Hepatitis C

Figure 1: Laboratory reports of hepatitis C, 1995–2009, Northern Ireland



Fifty five (provisional) cases of hepatitis C were reported in the first two quarters of 2010. Twenty four were female, aged between 16 and 84 years, while 31 cases were male, aged between 23 and 69 years.

The number of cases identified annually has approximately doubled since 2000 due to increased testing, but levelled off in 2005.

Hepatitis C key points

- Spread mainly through blood-to-blood contact, especially by injecting drugs.
- Often asymptomatic for many years.
- An estimated 4,000 people are infected in Northern Ireland; most are unaware.
- Treatment can successfully clear the virus in more than half of patients treated.
- Identification and treatment of patients with chronic hepatitis C will reduce onward transmission and the risk of late complications such as cirrhosis and hepatocellular carcinoma.

Who is at risk and should be tested?

Hepatitis C testing should be offered to anyone who:

- has unexplained abnormal liver function tests (eg elevated ALT) or unexplained jaundice;
- has injected drugs (including anabolic steroids) using shared equipment, however long ago and even if only once or twice;
- has had a blood transfusion in the UK before September 1991 or received any blood products in the UK before 1986;
- has received medical or dental treatment in countries where infection control may be poor;
- is the child of a mother with hepatitis C;
- is a regular sexual partner of someone with hepatitis C;
- has been accidentally exposed to blood where there is a risk of hepatitis C;
- has had tattoos, piercings, acupuncture or electrolysis where infection control procedures are poor.

Revised information leaflets for patients, to encourage them to be tested if they have been at risk at any stage, will be issued later this year.

Resources

Hepatitis C: quick reference guide for primary care was issued by DHSSPS in 2010. It is available at: http://www.hepcni.net/userfiles/file/NI%20Hep%20C%20quick%20Reference%20guide.pdf

Regional Virology Laboratory – for testing issues:
http://www.rvl-belfast.net/wiki/index.php?title=RVL_Home_Page

Northern Ireland Hepatitis C Managed Clinical Network

Established in 2007, the work of the network is facilitated and guided by a steering group and comprises four main areas:

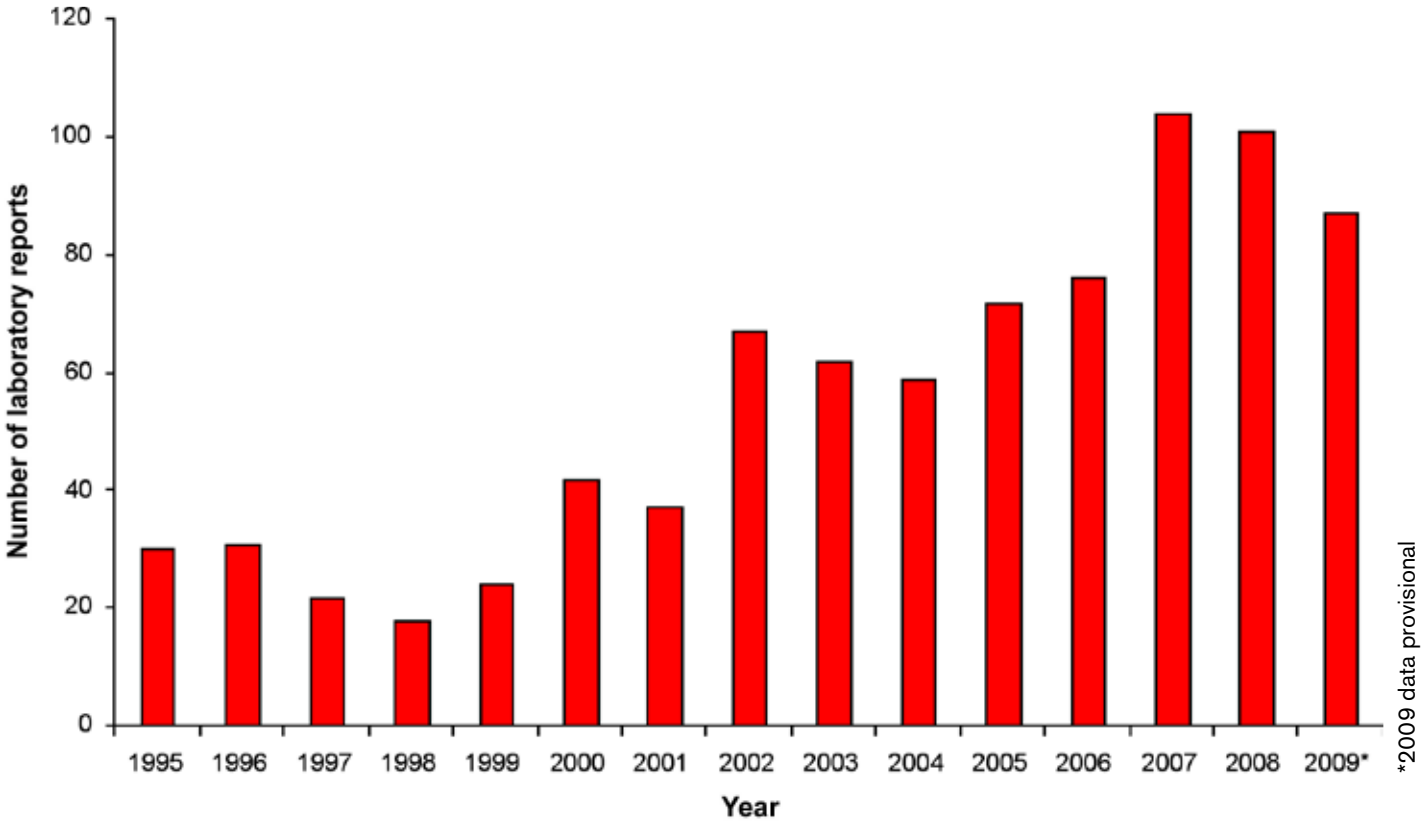
- education and awareness;
- drugs and addiction services;
- diagnostic and treatment services;
- surveillance.

For further information, please see www.hepcni.net or contact the network manager:

Annelies McCurley
4th Floor East Wing Royal Victoria Hospital
Tel: 028 9063 2898
Email: annelies.mccurley@belfasttrust.hscni.net

Hepatitis B

Figure 2: Laboratory reports of Hepatitis B, 1995–2009, Northern Ireland



Fifty four (provisional) cases of hepatitis B were reported during the first two quarters of 2010. Of these, 12 were classified as acute hepatitis B infection, 41 were classified as chronic cases and one was classified as unknown. Thirty two were male, aged between 19 and 73 years, while 22 were female, aged between two and 66 years.

There has been a rise in both acute and chronic hepatitis B since the late 1990s.

Hepatitis B key points

Hepatitis B is notifiable – please contact the duty room.

Acute hepatitis B is:

- acquired most commonly in the UK through vaginal or anal intercourse;
- also acquired as a result of blood-to-blood contact (eg sharing of needles and other equipment by injecting drug users (IDUs), 'needlestick' injuries, sharing of razors/toothbrushes).

Of those infected, 5–10% will develop chronic hepatitis B, more likely in those infected as children. Acute infection may be asymptomatic or cause a mild to fulminant hepatitis.

Chronic hepatitis B is most commonly acquired through perinatal, sexual or household/social contact in countries with high or intermediate prevalence of chronic infection.

High prevalence regions include sub-Saharan Africa, most of Asia and the Pacific islands.

Intermediate prevalence regions include southern parts of eastern and central Europe, the Amazon, the Middle East and the Indian sub-continent. Low prevalence regions include most of western Europe and north America.

Patients who were born in, or have been at risk in, high or intermediate prevalence countries should be offered testing so that treatment can be offered (if appropriate), contacts protected by vaccination, and infection control advice given.

As many of the risk factors are similar, consideration should be given to testing for HIV and hepatitis C at the same time.

Pregnant women should also be tested (this is mainly undertaken through the universal screening programme), so that appropriate vaccination of the neonate can take place. Referring the mother for treatment assessment is important, as is testing and vaccinating household and sexual contacts of those who test positive for chronic hepatitis B.

Hepatitis B is a preventable disease

In the UK at present, the hepatitis B vaccine is targeted at groups at special risk, details of which are in the 'Green book': http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_108820.pdf

Increasing vaccination of these groups is important to reduce the risk of transmission. Many countries include hepatitis B vaccine in their universal childhood programme, and it is good practice to complete this if started.

Some groups recommended for pre-exposure vaccination:

- injecting drug users or those likely to progress to injecting use;
- individuals who change sexual partners frequently, especially men who have sex with men and commercial sex workers;
- close family, and household and sexual contacts of people with chronic hepatitis B;
- patients with chronic liver disease;
- individuals in residential accommodation for those with learning difficulties;
- travellers going to or intending to live in high or intermediate prevalence countries.

Practice based vaccination for at risk groups (except for occupational purposes and travel) is included in the global sum.

HCAI team update

The HCAI team is pleased to welcome three members of staff who have been appointed to permanent positions within the health protection service:

Dr Lourda Geoghegan, Consultant in Health Protection, HCAI team lead: lourda.geoghegan@hscni.net

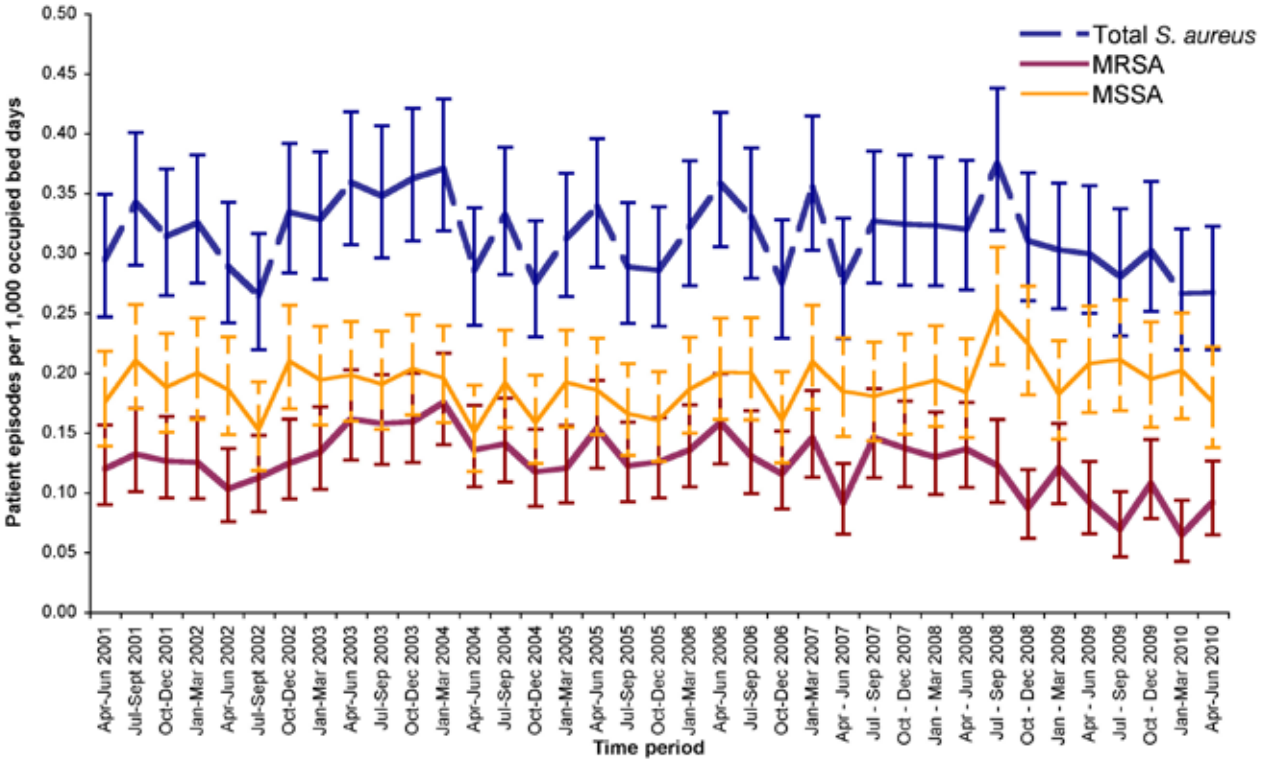
Ms Caroline McGeary, Senior Infection Control Nurse: caroline.mcgeary@hscni.net

Ms Hilda Crookshanks, Health Protection/Infection Control Nurse: hilda.crookshanks@hscni.net

Surveillance staff from the legacy HISC unit have now relocated from the Kelvin Building on the Royal Hospitals site to join PHA staff located in Linenhall Street, and are contactable on 028 9032 1313 and/or Email: firstname.surname@hscni.net

Staphylococcus aureus bacteraemia surveillance update

Figure 3: MSSA, MRSA and *S. aureus* patient episode rates in Northern Ireland by quarter, with 95% confidence intervals, April 2001–June 2010

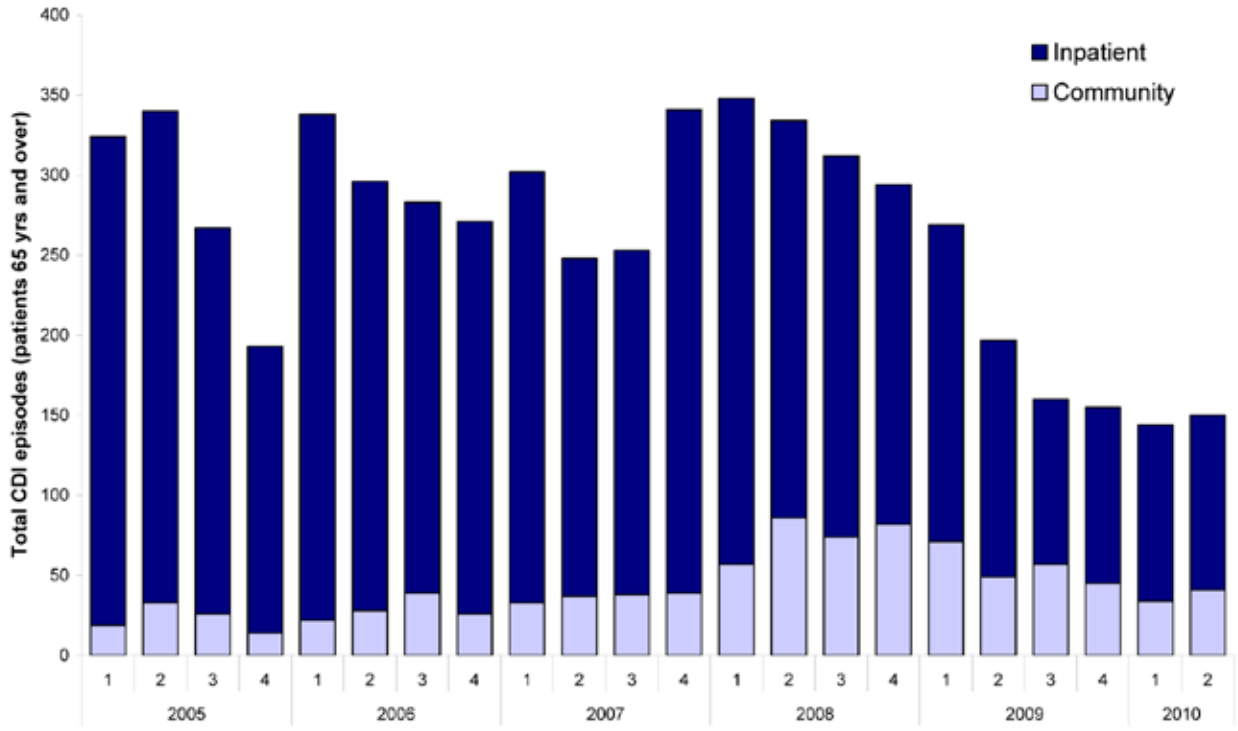


- Overall *Staphylococcus aureus (S. aureus)* rates for Northern Ireland (MRSA plus MSSA) increased by approximately 0.4% in quarter two compared to quarter one, 2010. This is due to a reduction in bed days rather than an increase in the total number of *S. aureus* cases. *S. aureus* rates for quarter two remain within expected parameters for Northern Ireland.

- Methicillin resistant *S. aureus* (MRSA) rates increased by approximately 42% in quarter two compared to quarter one, 2010. Reports increased from 27 in quarter one to 37 in quarter two. However, MRSA rates for quarter two remain within expected parameters for Northern Ireland. MRSA reports during 2009/10 fell 32% compared to 2008/09.

- Methicillin sensitive *S. aureus* (MSSA) rates decreased by approximately 13% in quarter two compared to quarter one, 2010. There were 85 reports in quarter one compared to 75 in quarter two. MSSA rates for quarter two remain within expected parameters for Northern Ireland. MSSA reports during 2009/10 fell by 8% compared to 2008/09.

Figure 4: Total CDI reports, inpatient and community, in Northern Ireland, by quarter (patients 65 years and over), between 2005 and 2010



- Total CDI reports, for both hospital inpatients and community patients aged two years and over, have increased by 7% (12 episodes) during quarter two, 2010.
- CDI reported for hospital inpatients aged 65 years and over decreased by 1% (one episode) during quarter two, 2010. However, due to a reduction in bed days, overall CDI rates in this patient group increased by 2% during quarter two.
- CDI reported for community patients aged 65 years and over increased by 21% (seven episodes) during quarter two.
- The rate of CDI episodes reported during quarter two has remained below the lower action limit of the statistical process control chart for the region, indicating a statistically significant reduction in CDI not explained by natural variation.
- CDI reports for hospital inpatients aged 65 years and over fell by 47% between the 2008/09 and 2009/10 financial years.

Clostridium difficile (CDI) ribotyping service update

The Northern Ireland *Clostridium difficile* (CDI) ribotyping service, based in the Royal Victoria Hospital laboratory, commenced on 1 April 2009 and has now been in operation for over a year. Trust laboratories are requested to send all CDI positive isolates for ribotyping. These are then matched against validated CDI episodes from CoSurv (the laboratory reporting surveillance system) on a quarterly basis.

Table 1 presents summary ribotyping data from the first 12 months of this new service. Ribotype 078 is the most prevalent CDI ribotype, with 001 the second most prevalent. 027 isolates accounted for just under 1.5% of all CDI ribotypes identified during the first year of the service.

Table 1: CDI ribotype results for the most prevalent CDI types, April 2009 to March 2010 *

Ribotype	Number	%
001	85	10.34
002	39	4.74
014	71	8.64
015	44	5.35
027	12	1.46
078	129	15.69
106	43	5.23
other	115	13.99
non groupable	124	15.09
not grown	95	11.56
not on list**	65	7.91
Total	**822**	

* Episodes are for inpatient and community sources aged two years and over.

** Episodes that have been validated through the PHA mandatory CDI surveillance scheme but have not been sent for ribotyping or cannot be matched to records on the ribotype result list.

CDI in community and primary care settings

Arrangements to support enhanced surveillance and risk assessment/ management of CDI in community and primary care settings were introduced through the health protection duty room earlier this year. Tools and guidance supporting this work have been shared with HSCT and community/primary care service providers. Following the receipt of a laboratory report of CDI, the duty room now completes an individual CDI risk assessment proforma with the community/primary care provider, and works with each to support and advise on the management of CDI cases identified.

The PHA extended the 'clean your hands' campaign to primary and community care settings across Northern Ireland earlier this year (campaign extension launched on 23 June 2010). Phase two of this campaign, based on the World Health Organization's five moments for hand hygiene, now includes general medical and dental care providers, nursing and residential care providers, independent hospitals, and hospices across Northern Ireland.

The PHA's HCAI team is currently facilitating five education and training sessions for the nursing and residential home sector (including independent care providers). These sessions will focus on the main messages of our 'clean your hands' campaign – best practice for infection prevention and control in the community, and arrangements supporting enhanced risk surveillance and assessment/management of CDI through the duty room.

E. coli 0157 outbreak

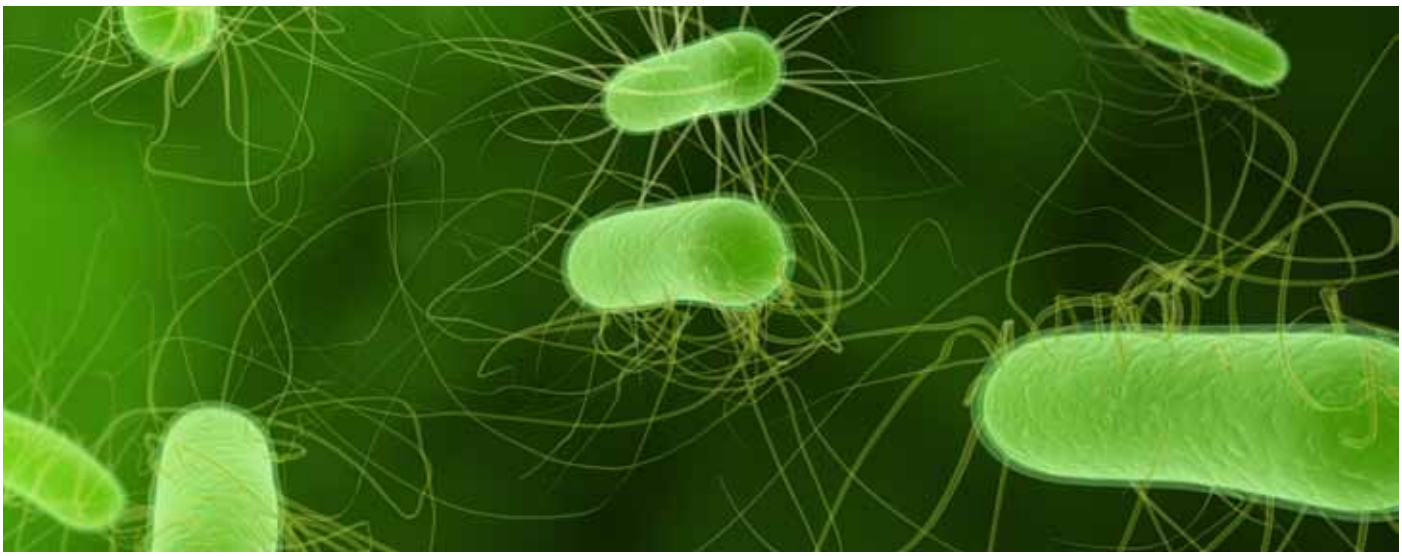
Verocytotoxin producing *E. coli* 0157 (VTEC) can cause illness ranging from mild diarrhoea to two much more serious conditions known as haemolytic uraemic syndrome (HUS) and thrombotic thrombocytopenic purpura (TTP). Although VTEC is not common as a cause of gastroenteritis, the disease can be fatal, particularly in infants and young children.

PHA staff and colleagues from the local district council environmental health department and HSCT were involved in the investigation of an outbreak of *E. coli* 0157 within a nursery school. From 1 to 30 September, 16 cases were identified, mostly as a result of an intensive faecal screening programme of all children and staff attending the nursery. Inspections of the nursery were carried out by environmental health officers and local infection prevention and control staff.

As a result, a programme of control was established, which incorporated:

- voluntary closure of the nursery school;
- minor structural alterations to the building;
- replacement of soft furnishings and toys;
- extensive cleaning of the premises;
- an educational hygiene programme;
- exclusion of all tested-positive staff and children when the school re-opened.

No cases required serious individual intervention or hospital admission.



Duty room contact details

Please remember that all health protection issues, queries and reports should come to the duty room where they will be logged, triaged and actioned either by the duty room staff or the appropriate team.

Duty room
Mon–Fri, 9.00am–5.00pm
Tel: 028 9055 3994 or 028 9055 3997
Fax: 028 9055 3930

Outside office hours, contact ambulance control on 028 9040 4045 and ask for the first on-call public health doctor to be paged.

News items

Influenza

Early October marks the start of the traditional influenza surveillance period in the northern hemisphere. In Northern Ireland, influenza surveillance involves:

- monitoring flu and flu-like illness reports from sentinel GP practices and out of hours providers;
- respiratory virus detections from swabs submitted by sentinel practices and other clinical locations;
- school absence monitoring in 20 primary and 20 post-primary schools;
- respiratory outbreak reporting to the duty room;
- flu-related deaths.

This is collated and published in a flu bulletin, which can be downloaded from the PHA website http://www.publichealth.hscni.net and the legacy CDSC website http://www.cdscni.org.uk/publications/default.asp

When flu activity is quiet, it is published every two weeks; it is published weekly when flu is circulating.

Warning on mushrooms

The National Poisons Information Service (NPIS) has issued a reminder about the risks of picking and eating toxic wild mushrooms:
http://www.hpa.org.uk/NewsCentre/NationalPressReleases/2010PressReleases/100924mushrooms/

Environmental and weather conditions have led to a bumper crop of wild mushrooms in many parts of the UK this autumn. The toxins in these mushrooms are generally not destroyed by cooking. The number of calls by clinicians to the NPIS related to ingestion of mushrooms has markedly increased this year.

Some useful guidance on wild food foraging can be found on the Food Standard Agency's website: http://www.food.gov.uk/news/newsarchive/2004/sep/forage

Further information on the NPIS can be found at:
http://www.hpa.org.uk/ProductsServices/ChemicalsPoisons/PoisonsInformationServices/NationalPoisonsInformationServices/

Further information for health professionals and other agencies:

Health protection duty room
Public Health Agency
4th Floor
12–22 Linenhall Street
Belfast
BT2 8BS

Tel: 028 9055 3994 or 028 9055 3997
Email: pha.dutyroom@hscni.net

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