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Updated UK guidance on the prevention and management of meningococcal disease in higher education institutions

Public Health England and Universities UK – together with the Meningitis Research Foundation, Meningitis Now, NHS National Services Scotland, Public Health Wales and the Public Health Agency in Northern Ireland – have revised UK guidance on the prevention and management of meningococcal meningitis and septicaemia in higher education institutions (HEIs) [1].

The new guidance takes account of current epidemiology of meningococcal disease, in particular the increased incidence, and current outbreak of, a virulent form of MenW disease that underlines the importance of first-year HEI students getting their MenACWY vaccination. Students at HEIs are at increased risk of meningococcal disease compared to their non-student peers, particularly in their first year and in the first few weeks of the autumn term.

The pre-existing guidance has also been updated to take account of modern electronic forms of communication and social media, as well as structural changes in the NHS.

The guidance underlines the importance of three key areas of action: raising awareness, promoting immunisation and planning ahead. On awareness-raising, the guidance recommends:

- HEI students and staff should be informed about meningococcal disease and its common signs and symptoms. It is a potentially fatal and life-changing disease that can be difficult to diagnose, particularly in the early stages
- all students should know to tell someone if they feel unwell and have someone they can contact if they are feeling worse. If a student is ill someone should regularly keep an eye on them and medical advice should be sought immediately if someone has symptoms of concern, or their condition is worsening.

On promoting immunisation, the guidance highlights many ways in which HEIs can alert new students to the importance of getting immunised with MenACWY vaccine, and describes the resources available to support this [2]. Efforts of HEIs in collaboration with their student health partners have already led to improvements in MenACWY vaccine uptake in their students.

On forward planning, the guidance states that HEIs should have arrangements in place for responding to any case, or cases, of meningococcal disease among students. That includes having allocated staff responsibilities for responding to cases (or an outbreak) and managing communications, and providing support for students and staff affected.

References

1. PHE and Universities UK (November 2016). [Guidance on the prevention and management of meningococcal meningitis and septicaemia in higher education institutions.](#)
 2. PHE webpages. [MenACWY vaccination programme resources.](#)
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Action programme on Gram-negative infections in healthcare

The Department of Health is to reinforce and extend existing infection prevention and control (IPC) measures in NHS hospitals – particularly relating to Gram-negative and surgical site infections, and to sepsis in general. The new IPC measures, announced by Secretary of State for Health Jeremy Hunt at a meeting of health protection specialists in London this week, are intended to replicate the success achieved in reducing MRSA and *Clostridium difficile* infections in healthcare in recent years [1]. The new action programme will apply similar IPC measures to Gram-negative infections, initially focussing on *Escherichia coli* bacteraemias.

Rates of *E. coli* bacteraemia – currently accounting for 65% of all Gram-negative infections in England – have increased by 20% over the last four years and the absolute number of reports is now more than double those of MRSA and *C. difficile* combined. Hunt announced that new data will be collected by PHE on *E. coli* rates in both hospitals and in the community.

Replicating a measure that has contributed to success in reducing MRSA and CDI infection rates, *E. coli* rates will be displayed on wards, making them visible to patients and visitors in the same way that MRSA and CDI rates are currently.

Among other IPC measures announced by the secretary of state is the collation of “indicators of hand hygiene” in hospitals – covering, for example, levels of hand gel use – to underline the importance of such hygiene measures for infection prevention.

The data will, for the first time, be shared with the Care Quality Commission and thus help target inspections and reduce the high variation in rates of HCAs, SSIs in particular, between different hospitals.

E. coli bacteraemia have been the subject of mandatory reporting since June 2011. Annual data and commentary are available via the [E. coli: Guidance, Data and Analysis](#) health protection collection on the PHE webpages of GOV.UK; data on the proportion of *E. coli* blood specimens resistant to key antibiotics are available at Clinical Commissioning Group level via the [AMR Local Indicators](#) pages of PHE’s Fingertips website).

Reference

1. Department of Health website news story (10 November 2016). [“Reducing infections in the NHS”.](#)
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Infection reports / Enteric

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Common animal associated infections quarterly report (England and Wales) – third quarter 2016

This quarterly report, produced by the Emerging Infections and Zoonoses Section at Public Health England Centre for Infectious Disease Surveillance and Control, and the Health Protection Division of Public Health Wales, summarises confirmed cases of zoonoses reported in England and Wales between July and September 2016 (third quarter; weeks 27-39).

Animal associated infections in England and Wales: laboratory reports to SGSS[†] (unless otherwise specified) by specimen date, Q3 (weeks 27-39/16)

Disease (Organism)	Reports for weeks 01-13		Reports for weeks 14-26		Reports for weeks 27-39		Total for weeks 01-39	
	2016*	2015	2016*	2015	2016*	2015	2016*	2015
Anthrax (<i>Bacillus anthracis</i>)	–	–	–	–	–	–	–	–
Brucellosis (<i>Brucella spp.</i>)	2	1	7	5	4	2	13	8
Hepatitis E	245	235	287	239	196	230	727	704
Hydatid (<i>Echinococcus granulosus</i>)	10	5	6	2	16	3	32	10
Leptospirosis (<i>Leptospira spp.</i>)	3	8	17	6	32	21	52	35
Lyme borreliosis (<i>Borrelia burgdorferi</i>)								
All cases	110	100	174	146	561	494	845	740
Acute infections	61	36	129	75	469	409	659	520
Pasteurellosis (<i>Pasteurella spp.</i>)	110	139	166	147	169	181	445	467
Psittacosis (<i>Chlamydia psittaci</i>)	4	4	6	11	4	6	14	21
Q-fever (<i>Coxiella burnetii</i>)	6	5	11	3	11	7	28	15
Toxoplasmosis# (<i>Toxoplasma gondii</i>)	63	88	96	86	84	82	243	256

[†]Second Generation Surveillance System has now replaced LabBase

* Provisional data

Based on date specimen received N/A=Not Available

Anthrax

There were no cases reported in the third quarter of 2016.

Brucellosis (data from the Brucella Reference Laboratories)

Four cases of brucellosis were reported in the third quarter of 2016, compared with two in the third quarter of 2015. Three of the cases were female and one was male, with ages ranging from 47 to 66 years. All were typed as *Brucella melitensis* by APHA, and all of the infections are reported to have been acquired overseas.

Hepatitis E (data from Public Health Laboratory Birmingham, and Blood Borne Virus Unit Colindale)

Please note that earlier this year we undertook a five-year look-back and data-cleaning exercise to ensure that all reference laboratory confirmed cases, including any late-reported cases, are included in the final dataset. The data presented here may therefore not match previous HPR reports.

There were 196 cases of hepatitis E in the third quarter of 2016 compared to 230 in the same quarter of 2015. One hundred and twenty-six cases (64%) were male (aged 13-94 years, median 60) and 64 (33%) were female (aged 21-84 years, median 61). The genders of the remaining six cases were not reported. The total number of cases (n=727) for weeks 01-39 is consistent with the on-going increase observed since 2010¹.

Laboratory confirmed cases of Hepatitis E infection (weeks 27-39, 2016)

Age Group	Male	Female	Unknown	Total
0-14	1	–	–	1
15-24	3	4	1	8
25-44	19	11	3	33
45-64	54	20	1	75
>64	49	29	1	79
Total	126	64	6	196

The persisting observation of the predominance of older men (see table above) remains unexplained.

The majority of cases (n=167; 85%) had no apparent travel history. Non-travel cases were reported from all regions: 40 cases from North of England, 51 cases from Midlands and the East of England, 55 cases from the South of England, eight cases from London and 10 cases from Wales (for three cases the region was unknown).

There is a consistent increasing trend in the number of reference laboratory reported hepatitis E cases with a year-on-year increase since 2010. Additional testing is conducted in local laboratories, but those cases are not reflected in this dataset.

Hydatid disease (data from the Parasitology Reference Laboratory)

Sixteen cases of cystic hydatid disease were reported in the third quarter of 2016, compared with three in the third quarter of 2015. Eight of the cases were males, seven were female, and gender was not stated for one case. The cases had ages ranging from 19 to 81 years. Six cases were reported with hepatic cysts, including one which was a calcified cyst, one patient from Iraq with an abdominal cyst, one patient had a ruptured cyst, and one patient with seizures had polycystic lesions (brain, heart and kidney).

An increase in hydatid disease is being observed in 2016, mostly due to infections imported from the Middle East and Eastern Europe.

Leptospirosis (data from the Leptospira Reference Unit)

There were 32 cases of confirmed leptospirosis reported in the third quarter of 2016, compared with 21 during the third quarter of 2015. Twenty-six of the cases were male (aged 13-84 years, median=30) and nine were female (aged 22-81 years, median=24). The regions reporting the highest number of cases were the South East and the East Midlands (7 cases each).

No cases reported exposure to rats in this quarter, although one was employed as a pest controller. Ten cases reported exposure to water and one reported occupational exposure to sewage. Nineteen cases had travelled abroad, to Thailand (n=4), Cape Verde (n=1), Croatia (n=1), France (n=1), Kenya (n=1), Mexico (n=1), Turkey (n=1), and Ukraine (n=1). One case did not specify a travel country, and seven visited more than one country.

Lyme disease (data from the Rare and Imported Pathogens Laboratory, Porton)

A total of 561 cases of laboratory confirmed Lyme disease was reported during the third quarter of 2016, compared with 494 during the third quarter of 2015. Of these cases, 469 were acute (including 27 with neuroborreliosis) and 92 were longstanding.

Of the acute cases, 258 were male (aged 1-82 years, median 45) and 209 were female (aged 2-86 years, median 48) (the remaining two cases had no gender specified).

Forty (8.5%) of the acute cases reported foreign travel: 27 to Europe, five to North America, three to Asia, two to the Middle East, and three had an unspecified travel history. Two hundred and ten cases reported an insect bite, of whom 189 (90%) specified a tick bite. Seventy nine cases reported erythema migrans as a presenting symptom.

Age group	Male	Female	Unknown	Total
0-14	28	20	–	48
15-24	22	20	–	42
25-34	34	30	–	64
35-44	40	22	1	63
45-54	41	36	–	77
55-64	52	38	1	91
65-74	33	32	–	65
75+	7	10	–	17
Unknown	1	1	–	2
Total	258	209	2	469

Region	Cases
East Midlands	11
East of England	31
London	82
North East	14
North West	16
South East	136
South West	119
Wales	13
West Midlands	32
Yorkshire & Humber	15
Total	469

Note: Specimens sent for Lyme borreliosis referral testing should be accompanied by a completed referral form: <https://www.gov.uk/lyme-borreliosis-service>

Pasteurellosis

There were 169 confirmed cases of pasteurellosis reported in the third quarter of 2016. This compares with 181 reported in the same quarter of 2015. The following species were reported: *Pasteurella multocida* (122 cases), *P. canis* (13 cases), *P. pneumotropica* (3 cases), *Pasteurella* other named (9 cases) and *Pasteurella* sp. (22 cases).

Ninety-six (56.8%) of the cases were female (aged 1-89 years, median 61) and 73 were male (aged 6-90 years, median 57). The South East of England reported the most cases (n=37). Ten of the cases were associated with cat bites, ten with dog bites, and two with unspecified wounds from a cat.

No deaths from pasteurellosis were reported in this quarter.

Laboratory confirmed cases of pasteurellosis (weeks 27-39, 2016)

Age group	Male	Female
0-14	2	2
15-29	2	5
30-39	6	7
40-49	17	15
50-59	13	16
60-69	12	20
70-79	14	15
80+	7	16
Total	73	96

Psittacosis

Four cases of psittacosis were diagnosed in the third quarter of 2016, compared with six in the third quarter of 2015. Three of the cases were female (aged 49, 67 and 69 years), and one was male (aged 48 years). Three of the cases were reported by the East of England, and one by the South West.

Note: Serological tests for respiratory chlamydia infections cannot consistently distinguish psittacosis. The cases reported above have been identified by reporting laboratories as infection with *Chlamydia psittaci*.

Q fever (data from the Rare and Imported Pathogens Laboratory, Porton, and Bristol Reference Laboratory)

There were eleven cases of Q fever reported in the third quarter of 2016, compared with seven in the third quarter of 2015. Six were male (aged 31-77 years, median 54.5) and five were female (aged 28-68 years, median 34). The region reporting the highest number of cases was the South West (n=5).

Toxoplasma (Data from the Toxoplasma Reference Unit)

There were 84 cases of toxoplasmosis reported in the third quarter of 2016, compared with 82 in the third quarter of 2015. Two cases reported ocular symptoms. Eleven cases occurred in pregnant women.

In addition, there were six unconfirmed congenital cases reported, all linked to pregnant cases in this quarter. There was one unconfirmed pregnant case linked to a congenital case reported in this quarter. (The unconfirmed case numbers are not included in figures presented in this report.)

Laboratory confirmed cases of toxoplasma infection (weeks 27-39, 2016): age group by sex; age group by clinical category

Age Group	Male	Female	Unknown	Total
<0	–	–	–	0
0	1	–	–	1
1-9	1	–	–	1
10-14	–	1	–	1
15-24	11	8	–	19
25-44	17	31	2	50
45-64	5	4	–	9
>64	1	2	–	3
Total	36	46	2	84

Age Group	Cong-enital	Pregnant	HIV	Transplant donor	Transplant recipient	Other (immuno-competent)	Other (immune-suppressed)	Total
<0	–	–	–	–	–	–	–	0
0	1	–	–	–	–	–	–	1
1-9	–	–	–	–	–	1	–	1
10-14	–	2	–	–	1	15	1	19
15-24	–	–	–	–	–	1	–	1
25-44	–	8	1	1	–	36	3	49
45-64	–	–	–	–	–	9	–	9
>64	–	–	–	–	1	1	1	3
Total	1	10	1	1	2	63	5	83*

*One case was both pregnant and had HIV, and is not included in the totals shown in this table

Other zoonotic organisms

Other zoonotic infections of interest diagnosed in the third quarter of 2016 were as follows:

- Eight cases of *Capnocytophaga* were reported. All of the cases were bacteraemic. Five of the cases were male (median 76 years) and three were female (median 61 years). Four of the cases were reported by the South East of England, two by the East Midlands, and one each by London and the South West.
- Three cases of *Erysipelothrix rhusiopathiae* and one case of *Erysipelothrix* sp. were reported. Three cases were bacteraemic and one had a cystic lesion. Three of the cases were female (median 62 years) and one was male (74 years). One case was reported in each of: the East of England, the North East, the South East and the West Midlands.
- Three cases of *Mycobacterium marinum* were reported. All were diagnosed by culture of tissue samples. Two of the cases were male (aged 36 and 62 years), and one was female (aged 47 years). One case was reported from each of the East Midlands, London and Yorkshire and Humber.

Reference

1. <https://www.gov.uk/government/publications/hepatitis-e-symptoms-transmission-prevention-treatment/hepatitis-e-symptoms-transmission-treatment-and-prevention>

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Common gastrointestinal infections, England and Wales, laboratory reports: weeks 40-43/2016

Laboratory reports	Number of reports received				Total reports 40-43/16	Cumulative total	
	40/16	41/16	42/16	43/16		1-43/16	1-43/15
Campylobacter	996	961	956	853	3766	44470	47433
<i>Escherichia coli</i> O157 *	37	24	23	25	109	759	N/a
Salmonella †	202	168	148	29	547	6334	6704
<i>Shigella sonnei</i>	16	11	20	12	59	616	787
Rotavirus	37	42	45	32	156	2157	4588
Norovirus	201	162	187	138	688	4356	4006
Cryptosporidium	201	162	187	138	688	4356	4006
Giardia	88	101	111	120	420	3340	3376

*Vero cytotoxin-producing isolates: data from PHE's Gastrointestinal Bacteria Reference Unit (GBRU).

† Data from GBRU.

Less common gastrointestinal infections, England and Wales, laboratory reports: weeks 31-43/2016

Laboratory reports	Total reports 31-43/2016	Cumulative total to 43/2016	Cumulative total to 43/2015
Astrovirus	38	244	222
Sapovirus	111	270	215
<i>Shigella boydii</i>	12	49	45
<i>Shigella dysenteriae</i>	9	24	21
<i>Shigella flexneri</i>	127	397	563
<i>Plesiomonas</i>	13	65	46
<i>Vibrio</i> spp.	20	66	64
<i>Yersinia</i> spp	18	42	19
<i>Entamoeba histolytica</i>	12	38	53
<i>Blastocystis hominis</i>	38	138	124
<i>Dientamoeba fragilis</i>	13	45	8

Salmonella infections (faecal specimens) England and Wales, reports to Public Health England (salmonella data set): September-October 2016

Details of 1141 serotypes of salmonella infections recorded in September 2016 are given in the table below.

In October 2016, 547 salmonella infections were recorded.

Organism	Cases: September 2015
<i>S. Enteritidis</i>	407
<i>S. Typhimurium</i>	274
<i>S. Virchow</i>	16
Others (typed)	444
Total salmonella (provisional data)	1141

Notes:

1. Phage typing ceased as of 1 November 2015
2. Following the introduction of a new laboratory reporting system (SGSS) in December 2014, direct comparisons with data generated by the previous system (LabBase2) may not be valid.

Suspected and laboratory-confirmed reported norovirus outbreaks in hospitals, with regional breakdown: outbreaks occurring in 40-43/2016

The hospital norovirus outbreak reporting scheme (HNORS) recorded 28 outbreaks occurring between weeks 40 and 43, 2016, 25 of which led to ward/bay closures or restriction to admissions and were recorded as laboratory-confirmed due to norovirus. Between week 1 (week beginning 4 January 2016) and week 43 (week beginning 24 October 2016) 399 outbreaks were reported. Ninety-six per cent (384) of reported outbreaks resulted in ward/bay closures or restrictions to admissions and 79% (304) were laboratory-confirmed as due to norovirus (see table).

Suspected and laboratory-confirmed reported norovirus outbreaks in hospitals, with regional breakdown: outbreaks occurring in weeks 40-43/2016

Region/ PHE Centre	Outbreaks between weeks 40-43/2016			Total outbreaks 1-43/2016		
	Outbreaks	Ward/bay closure*	Lab-confirmed	Outbreaks	Ward/bay closure*	Lab-confirmed
East of England	–	–	–	–	–	–
East Midlands	–	–	–	22	21	20
London	–	–	–	1	1	–
North East	2	1	–	63	58	50
North West	2	2	–	43	43	28
South East	3	3	–	37	36	27
South West	3	3	2	102	102	79
West Midlands	5	3	1	42	38	25
Yorkshire and Humberside	13	13	12	89	85	75
Total	28	25	15	399	384	304

* Note: not all outbreaks result in whole wards closures, some closures are restricted to bays only.