Health Protection Scotland

HPS Weekly Report

NHS National Services Scotland

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CONTENTS

CURRENT NOTES

WHO recommendations - northern hemisphere influenza vaccines 2016-2017

50/1101 On 25 February 2016, the World Health Organization (WHO) published recommendations on the composition of the trivalent and quadrivalent vaccines for the 2016/17 northern hemisphere influenza season. The recommendations for the influenza A(H1N1)pdm09 strain remained the same as in the previous year while the recommended strains for influenza A(H3N2) and B viruses have changed from those recommended in 2015/16. WHO recommends that trivalent influenza vaccines should contain the following:

- an A/California/7/2009 (H1N1)pdm09-like virus;
- an A/Hong Kong/4801/2014 (H3N2)-like virus;
- a B/Brisbane/60/2008-like virus.

For the quadrivalent influenza vaccines which contain two influenza B viruses, the WHO recommends that the above three viruses plus a B/Phuket/3073/2013-like virus be used.

As in previous years, national or regional authorities approve the composition and formulation of vaccines used in each country and will be responsible for making recommendations regarding the use of the vaccine.

The WHO's recommendations are fully discussed in the current edition of the Weekly Epidemiological Record at http://www.who.int/wer/2016/wer9110/en/.

Lymphogranuloma venereum - recent increase in diagnoses

50/1102 The Scottish Bacterial Sexually Transmitted Infection Reference Laboratory (SBSTIRL) has informed HPS of a recent increase in the number of diagnoses of Lymphogranuloma venereum (LGV) in 2016 with a total of nine to date. This compares with a total of 15 in 2015, eight in 2014 and an average of nine diagnoses in the preceding three years (2011-2013).

LGV, a condition caused by a serovar of *Chlamydia trachomatis,* re-emerged in Europe in 2003 with subsequent outbreaks in major cities across the European area, the largest of which has been in the UK with >4100 diagnoses reported to the end September 2015 with most reports being among men who have sex with men, including a high proportion (75%) who are HIV positive. Notably,

there has been a sustained increase in the number of diagnoses in the UK since 2012; this has not been evident in Scotland until the last quarter of 2015 and the start of 2016 when there have been a total of 15 diagnoses in this five-month period. While there are confirmed diagnoses of LGV among men in several NHS board areas, the majority have been diagnosed in NHS Lothian.

The SBSTIRL perform LGV testing in individuals who are: *C. trachomatis* positive with symptoms such as proctitis and inguinal lymphadenopathy; contacts of LGV cases; and, for HIV-positive MSM who are *C. trachomatis* positive at any site. The SBSTIRL User Manual, including the LGV test request form, is available on the HPS website at: http://www.hps.scot.nhs.uk/reflab/RefLabDetail.aspx?id=20.

ECDC chlamydia guidance - surveillance data

50/1103 On 7 March 2016, an updated version of the 'Guidance on chlamydia control in Europe' was published on the European Centre for Disease Prevention and Control (ECDC) website and is available at http://ecdc.europa.eu/en/publications/_layouts/forms/Publication_DispForm.aspx?List=4f55ad51-4aed-4d32-b960-af70113dbb90&ID=1445). As the previous version, published in 2009, the newly released document is intended to support policymakers and national programme coordinators in developing, implementing and improving their chlamydia control strategies in an evidence-based manner.

Also on 7 March, the most recent surveillance data on chlamydia were made available in the interactive ECDC Surveillance Atlas of Infectious Diseases (at http://atlas.ecdc.europa.eu/public/index.aspx?Dataset=251). In 2014, there were 396,128 cases of chlamydia infections officially reported from 26 EU/EEA countries with young people between 15 and 24 years of age accounting for 63% of all reported cases.

TB laboratory diagnostic methods

50/1104 Tuberculosis (TB) is a major cause of morbidity and mortality in Europe. High-quality laboratory diagnosis of TB is the basis for both individual patient treatment and surveillance.

The aim of a handbook recently (14 March) published by the European Centre for Disease Prevention and Control (ECDC) is to provide network members and other laboratories involved in the diagnosis of tuberculosis, with an agreed list of key diagnostic methods and their protocols in various areas of TB diagnosis, ranging from microbiological diagnosis of active TB to the diagnosis of latent TB infection. The handbook offers a single source of reference by compiling all methods, with a strong focus on standard (reference) and evidence-based methods. In so doing, it will also contribute to the improvement of disease surveillance data for Europe.

The first version of this report, previously published as 'Mastering the basics of TB control: Development of a handbook on TB diagnostic methods' (Stockholm 2011) concerned the development of the handbook which was included as an annex. This report has now been revised, updated and renamed as the 'Handbook on TB laboratory diagnostic methods for the European Union' and can be accessed at http://ecdc.europa.eu/en/publications/_layouts/forms/Publication_DispForm.aspx?List=4f55ad51-4aed-4d32-b960-af70113dbb90&ID=1449.

The current document does not contain any formal recommendations for implementation of specific methods in EU/EEA member states. Recommendations and protocols contained within the handbook are not mandatory for EU/EEA laboratories.

IIAC reviews cancers due to ionising radiation

50/1105 The carcinogenic potential of ionising radiation is recognised within the Industrial Injuries Scheme in the terms set out for Prescribed Disease (PD) A1. These currently provide coverage in relation to five cancers, leukaemia (other than chronic lymphatic leukaemia), and cancers of

the bone, female breast, testis, and thyroid, provided that occupational exposures are sufficient to double the risk of the condition (the threshold at which a disease can be attributed to a person's work on the balance of probabilities). These terms were set in 1999.

Over time, however, new international evidence has accrued on the health effects of chronic exposure to ionising radiation and the sensitivity of body tissues to cancer induction. The Industrial Injuries Advisory Council (IIAC) has therefore reviewed whether the terms of PD A1 should be updated. Evidence has been taken, in particular, from the Centre for Radiation, Chemical and Environmental Hazards of Public Health England, the UK Government's official expert advisors on radiation risks.

The evidence is now such that the Council recommends that the terms of PD A1 be extended to cover six more cancers: of the colon, liver, lung, stomach, ovary and bladder. Additionally, the Council recommends that coverage for breast cancer be extended to permit claims in men, as well as in women. Finally, it recommends two minor changes to the wording of PD A1 which update and clarify its meaning and also provide improved advice to the Department on claims assessment.

Although the tumours proposed for addition are common in the population at large, the qualifying exposures are exceptionally high by modern standards. As such, the impact on claims activity is likely to be small and to relate to industrial circumstances where exposure conditions historically were very different from recent decades. [Source: IIAC Report, 25 February 2016. https://www.gov.uk/government/publications/cancers-due-to-ionising-radiation-iiac-report]

Food manufacturer fined for failing to comply with Packaging Waste regulations

50/1106 A Glasgow food manufacturer was fined £8,600 at Glasgow Sheriff Court on 7 March for failing to comply with regulations designed to reduce the impact of packaging and packaging waste on the environment. The company has also paid £28,538 as a Confiscation Order under the Proceeds of Crime Act. Walter Black Foods Limited of Drumhead Road, Cambuslang Investment Park, Glasgow, pled guilty to failing to register in accordance with the regulations, failing to take reasonable steps to recover and recycle packaging waste and failing to provide a certificate of compliance in respect of recovery and recycling obligations.

The matter was investigated by the Scottish Environment Protection Agency (SEPA) and reported to the Procurator Fiscal.

The Producer Responsibility Obligations (Packaging Waste) Regulations are intended to prevent or reduce the impact of packaging and packaging waste on the environment by encouraging minimisation and reuse, and by setting recovery and recycling targets. The Directive, which the Regulations implemented, aims to increase the amount of packaging waste that is recovered and recycled rather than being disposed of as waste to landfill.

Companies must:

- register with SEPA or join an approved compliance scheme;
- recover and recycle an amount and types of packaging waste based on the amounts and types of waste handled by them;
- submit information on the packaging handled by them, together with evidence of their recovery and recycling of the packaging waste, to SEPA.

In October 2013 SEPA discovered that Walter Black Foods Limited had been de-registered from the compliance scheme they had been a member of. The regulations state that if a company's membership of a scheme is discontinued, an application for registration must be made to the appropriate agency (in this case SEPA) within 28 days. No such application had been received by SEPA.

Despite warning letters from SEPA, the company did not make suitable arrangements. As a result it was not registered for 2013 and did not complete the requirements listed above. [Source: SEPA Media Release, 8 March 2016. http://media.sepa.org.uk/media-releases/2016/glasgow-food-manufacturer-fined-for-failing-to-comply-with-packaging-waste-regulations/]

Air pollution forecasting in Scotland

50/1107 Forecasting of air pollution levels is carried out by the Met Office and the results are presented to the Department for Environment, Food and Rural Affairs (Defra) to enable comparison of predicted levels of selected pollutants with guideline values. These are then expressed in terms of colour coded bands representing progressively poorer air quality from low air pollution to high and very high levels. These bandings match those provided in the Air Quality in Scotland website.

Basic health advice is attributed to each of the colour bandings aimed mainly at those with vulnerabilities to air pollution such as chronic lung disease e.g. asthma.

Defra has predicted the possibility of increased air pollution later this week affecting parts of central Scotland. However, further modelling will be carried out over the next few days before more definitive advice will be issued by Defra and others.

Relevant information can be accessed on the Defra UK-Air (http://uk-air.defra.gov.uk/forecasting/) and Scottish Air Quality (http://www.scottishairquality.co.uk/latest/forecast) websites.

A N S W E R

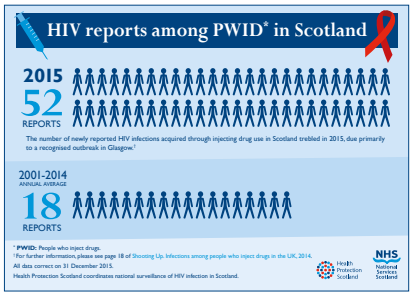
HIV infection and AIDS: Quarterly report to 31 December 2015

Diagnosed HIV-infected persons living in Scotland	Number of HIV-infected persons attending for care and treatment	Proportion of attenders on treatment
5059	4180	93%

During 2015, NHS Scotland laboratories reported positive HIV-antibody test results for 361 individuals not previously recorded as HIV-positive. The cumulative total of known HIV-positive individuals ever reported in Scotland is now 8364, of whom 6118 (73%) are male and 2246 (27%) are female. At least 1990 (24%) are known to have died. Allowing for known and presumed migration of infected persons, it is estimated that there are currently 5059 persons living in Scotland who have been diagnosed HIV-positive.

Of the 361 HIV-positive individuals reported in 2015, 282 (78%) are male, and 235 (65%) are aged between 25 and 44 years. The probable route of transmission was men who have sex with men (MSM) in 137 cases, heterosexual intercourse in 91, and injecting drug use in 52. Of the heterosexually infected individuals, 65 probably acquired their infection abroad (outwith the UK). Greater Glasgow & Clyde reported 130 diagnoses, 68 were reported from Lothian, 40 from Lanarkshire and 31 from Grampian. Of the individuals infected through injecting drug use, 92% (48/52) are presently presumed to have been exposed in Scotland. The unusually high number of reports among people who inject drugs (PWID) is due to a recognised outbreak primarily within the Greater Glasgow & Clyde NHS Board area. For 80 persons, the transmission category is, as yet, undetermined. Active follow-up of those diagnoses with undetermined transmission category should result in improved data quality throughout the course of 2016.

Download infographic.



Of the 361 individuals reported during 2015, 155 (43%) are presumed to have acquired their infection outwith Scotland (119 of known transmission category plus 36 as yet undetermined). It is expected that this proportion will change as reports are actively followed up to acquire missing epidemiological information.

As at 30 September 2015, 4180 HIV infected individuals were attending specialist services for monitoring and treatment. Including recently reported persons (134 – Table 5) who may not as yet have recorded an attendance, this represents 85% of the estimated number of diagnosed individuals currently living in Scotland. Across Scotland, 93% of persons attending for monitoring are receiving anti-retroviral therapy.

Continuing investigation into previously reported HIV diagnoses has resulted in the enhancement of several records with additional epidemiological information, while several recent reports have yet to be followed up. See Tables 2, 3 and 4 for detailed updates to totals in transmission categories, NHS boards, and other figures.

More detailed information and cumulative information is included in the following tables. The HIV-positive and AIDS databases are under continual review and modification as additional information becomes available. This may result in apparent discrepancies when current and previously published tables are compared. During 2016, HPS will conduct a full review of all cases 'lost to follow-up'. This review will improve the overall quality of the HIV database by providing definitive outcome information on several currently unresolved individuals.

HPS would welcome comment and suggestions from stakeholders regarding content. Please direct any correspondence to Glenn Codere, BBV/STI Information Manager, HPS (email g.codere@nhs.net, tel 0141 300 1146).

TABLE 1: HIV-1 infected persons, Scotland, by exposure category and date reported; January to December 2015.

How person probably acquired the virus	Male	Female	Total
Sex between men (MSM)	137	0	137
Sexual intercourse between men and women			
'high risk' partner[1]	*	*	*
exposure in Africa[2]	*19*	*27*	*46*
exposure abroad (excl. Africa)[3]	*14*	*5*	*19*
exposure UK	*9*	*11*	*20*
under investigation	*	*	*
no further information available	*0*	*0*	*0*
Heterosexual sub-total	44	47	91
Injecting drug use (IDU)	35	17	52
IDU and MSM	0	0	0
Blood factor (e.g. haemophiliac)[4]	0	0	0
Blood/tissue transfer (e.g. transfusion)[4]	0	0	0
Mother to child	*	0	*
Other	0	0	0
Undetermined	65	15	80
Total	**282**	**79**	**361**

1. Men and women who had sex with injecting drug users, or with those infected through blood factor treatment or blood transfusion, or women who had sex with bisexual men.
2. Persons without other identified risks but who have had sexual intercourse in Africa.
3. Persons without other identified risks but who have had sexual intercourse abroad excluding African countries.
4. Includes persons infected in the UK prior to 1985 and persons who acquired their infection abroad.

TABLE 2: HIV reports, Scotland[1] by year of report, exposure category and presumed area of exposure[2]; to 31 December 2015.

Year of report	All risks[3]				Men who have sex with men (MSM)				Sexual intercourse between men and women				PWID	Age group[4] 15-24
	Total[5]	within Scotland	outwith Scotland	outwith UK	Total[5]	within Scotland	outwith Scotland	outwith UK	Total[5]	within Scotland	outwith Scotland	outwith UK		
2001	170	79	89	70	68	43	25	8	75	21	52	50	19	21
2002	250	104	143	113	92	58	34	15	130	31	99	89	14	25
2003	258	104	149	125	101	62	39	20	135	33	101	98	11	38
2004	359	141	217	188	141	98	43	21	195	30	165	159	15	51
2005	404	149	255	207	172	106	66	35	197	27	170	160	27	48
2006	340	122	216	175	149	87	62	29	162	21	139	134	22	33
2007	440	153	283	224	203	115	88	40	219	35	182	172	10	65
2008	405	149	250	203	162	98	64	29	206	37	168	161	21	29
2009	419	142	273	222	176	99	77	41	209	35	174	160	18	33
2010	359	149	209	172	162	108	54	29	167	24	143	134	21	35
2011	364	162	199	142	174	112	62	28	161	39	122	101	19	31
2012	347	125	216	159	172	94	78	39	144	21	123	107	16	33
2013	354	143	203	148	179	99	80	38	143	29	111	99	21	25
2014	370	153	209	138	183	97	86	32	149	36	112	98	22	31
2015	361	157	119	87	137	92	45	18	91	17	69	65	52	32

1. Due to active follow-up, data on the Scottish AIDS/HIV Register is constantly changing. Figures presented in this table may differ slightly from those previously published.
2. 'Presumed area of exposure' is based on information provided by the patient at the time of test or during subsequent follow-up. An individual is presumed to have been infected in Scotland if, after investigation, no evidence exists to the contrary. 'Outwith UK' is a subset of 'outwith Scotland'. Cases under investigation are excluded from all categories except the total.
3. Includes persons outwith three main risk groups.
4. Age at time of first positive specimen.
5. Includes cases currently under investigation.

TABLE 3: HIV reports, Scotland by year of report and NHS board[1]; to 31 December 2015.

Year of report	A&A	BR	D&G	FF	FV	GR	GG&C	HG	LN	LO	TY	SH, OR, WI
2001	*	*	*	8	*	19	43	*	16	51	19	0
2002	8	*	*	16	7	17	83	11	14	73	18	0
2003	*	*	*	12	*	24	93	7	18	80	14	0
2004	10	*	8	21	6	26	115	7	24	112	26	0
2005	10	*	13	17	16	33	126	9	30	131	17	0
2006	10	*	12	11	14	24	110	5	28	95	25	*
2007	10	*	9	20	13	46	137	17	36	118	30	*
2008	8	*	*	11	14	42	140	10	25	115	31	*
2009	10	5	5	18	16	35	187	13	31	75	23	*
2010	16	5	5	11	11	37	112	14	29	91	27	*
2011	14	*	*	18	14	30	113	13	27	97	32	*
2012	11	*	5	16	10	42	114	14	27	87	19	0
2013	19	*	5	9	16	45	100	7	29	88	30	*
2014	15	*	6	11	10	31	130	15	35	94	20	0
2015	12	7	8	18	10	31	130	13	40	68	23	*

1. See NHS board in terms and definitions.

TABLE 4: Monitoring and progression, and deaths among HIV infected individuals, Scotland; to 31 December 2015.

Year of monitoring/ diagnoses/death	Monitoring and progression		Reported deaths[1]	
	Individuals attending for CD4/VL monitoring[2]	AIDS cases diagnosed	All HIV infected cases	AIDS only
2001	1388	37	53	21
2002	1522	62	67	32
2003	1676	50	63	28
2004	1922	58	29	7
2005	2204	52	52	18
2006	2402	40	47	14
2007	2661	53	48	13
2008	2869	47	49	18
2009	3095	44	50	11
2010	3346	55	48	16
2011	3581	31	42	8
2012	3773	22	43	12
2013	3932	16	49	17
2014	4147	19	35	13
2015	4076	12	30	12

1. Death figures are for those persons known to be HIV infected, or who have been diagnosed with AIDS. In some cases the actual cause of death may have been unrelated to the person's infection status. Death data is subject to reporting delay.
2. Total individuals attending for monitoring within given year. Subject to three-month reporting delay.

TABLE 5: New HIV reports and current status of living diagnosed persons; to 31 December 2015.

NHS board	Diagnoses reported during year to 31 December 2015					Current status of living diagnosed persons						
	Total	MSM	Het	IDU	Other/ NK	Estimated[1] diagnosed individuals alive as at 31 Dec 2015	Number attending[2] for monitoring	Recent report[3]	Proportion of Dx individuals attending or recently reported	Proportion of attenders on treatment at any level	Number lost to follow up (and number last identified prior to 1 Oct 2005)	
A&A	12	*	*	*	*	160	131	5	85%	90%	28	(6)
BR	7	*	*	*	0	47	39	*	85%	87%	9	*
D&G	8	*	*	0	*	74	55	5	81%	98%	17	*
FF	18	7	*	0	8	227	190	*	85%	93%	38	(10)
FV	10	*	*	0	8	161	130	6	84%	88%	27	(16)
GR	31	14	15	0	2	383	327	10	88%	93%	58	*
GG&C	130	36	32	42	20	1550	1303	46	87%	92%	271	(69)
HG	13	*	8	0	*	144	126	*	88%	93%	18	(9)
LN	40	14	*	*	15	381	318	16	88%	89%	59	(11)
LO	68	44	13	*	*	1547	1279	29	85%	95%	287	(151)
TY	23	7	6	0	10	372	270	11	76%	93%	108	(23)
OR, SH, WI	*	*	0	0	0	15	12	*	86%	92%	*	(0)
Total	**361**	**137**	**91**	**52**	**80**	**5059**	**4180**	**134**	**85%**	**93%**	**923**	**(304)**

1. Estimate is calculated by adding number currently attending, number recently reported but not yet attending and number lost to follow-up, then allowing for outward migration of non-Scots lost to follow-up.
2. Individuals alive, not known to have left Scotland, and recording at least one attendance within the previous 12 months as at 30 September 2015.
3. Individuals reported within the past 12 months who have not yet attended for monitoring at a specialist clinic.

Acknowledgements

HPS thanks collaborators and contributors to national HIV surveillance throughout Scotland for their assistance in the compilation and production of these data.

Terms and definitions

Attending/Attenders: Individuals are considered to be 'attending' if they have recorded at least one visit to a specialist HIV clinic for monitoring and/or care within the most recent 12-month period.

Lost to follow-up: Individuals are considered to be 'lost to follow-up' if a) they have not recorded an attendance at a specialist HIV clinic within the previous 12 months and b) no evidence exists of recent attendance at an NHS facility for a non-HIV related condition and c) no evidence exists of recent attendance for HIV care in an NHS setting other than a specialist HIV centre and d) no evidence exists that the patient is deceased or has left Scotland.

NHS board: Unless otherwise specified, individuals are assigned to a specific NHS board based on the patient's postcode of residence or, where this is not known, their NHS board of referral.

PWID: People who inject drugs.

Suppression of 'small numbers': Where there is deemed to be a risk of deductive disclosure, some small numbers (usually those below five) presented within these tables have been suppressed (represented by *).

Transmission category: Individuals are assigned to a transmission category based on a clinical assessment of their most likely method of exposure and subsequent infection.

Estimated number of diagnosed persons living in Scotland: This estimate is calculated by adding persons currently attending, persons recently reported but not yet attending, persons of Scots origin/ethnicity who are lost to follow-up, and 54% of individuals of non-Scots origin/ethnicity who are lost to follow-up. Data from the 2010/2011 HIV Action Plan (Action 6) quantitative project, the 2011 BASHH Scotland Audit (both investigating reported HIV-positive individuals lost to follow-up), and routine follow-up of cases performed by HPS indicate that approximately 46% of non-Scots who have not attended for specialist monitoring/treatment are presumed to have left Scotland.

The last HIV and AIDS Surveillance Report was in Issue 15/48
The next HIV and AIDS Surveillance Report will be in Issue 16/22

NHS BOARD ABBREVIATIONS

AA	Ayrshire & Arran	BR	Borders	DG	Dumfries & Galloway	GGC	Greater Glasgow & Clyde
FF	Fife	FV	Forth Valley	GR	Grampian	HG	Highland
LO	Lothian	LN	Lanarkshire	OR	Orkney	SH	Shetland
TY	Tayside	WI	Western Isles				

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