



Public Health
England

Protecting and improving the nation's health

Group A streptococcal infections: third report on seasonal activity, 2018/19

Health Protection Report
Volume 13 Number 16
10 May 2019

Group A streptococcal infections: third report on seasonal activity in England, 2018/19

Surveillance of scarlet fever indicates the start of a seasonal decline in notifications. Weekly numbers remained below those seen during the last few seasons (weeks 37 to 18) [1]. The number of laboratory notifications of invasive group A streptococcal (iGAS) disease are within the range of what is normally reported at this time of year.

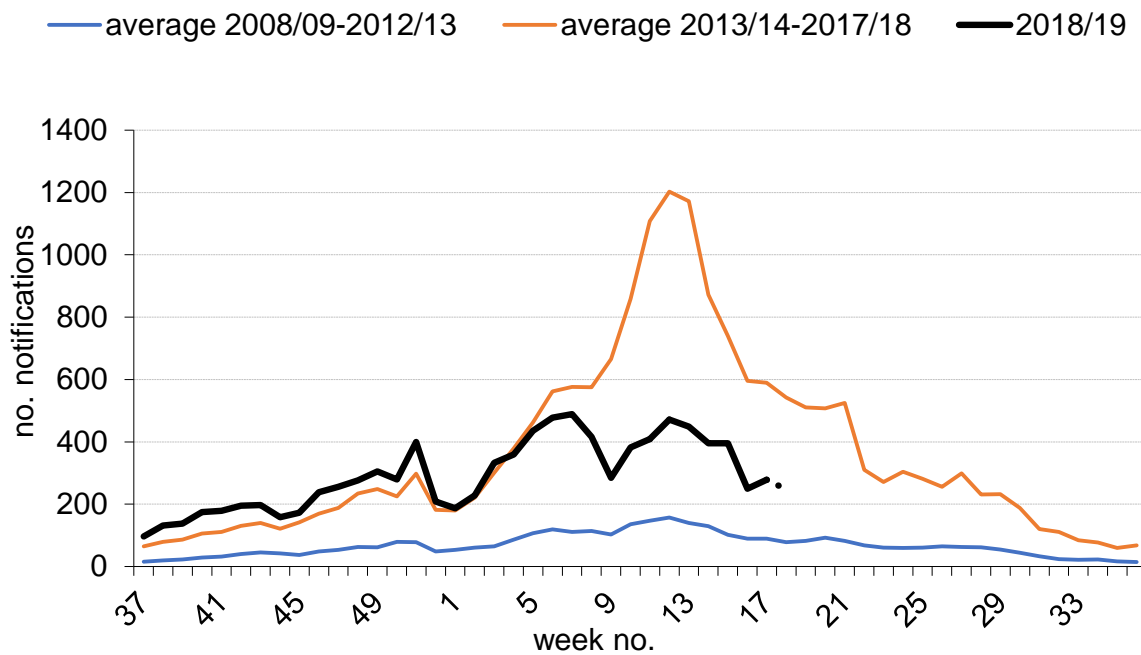
Scarlet Fever

A total of 9,887 notifications of scarlet fever have been received to date this season in England (weeks 37 to 18, 2018/19), compared to an average of 14,128 for the same period in the last five seasons (2013/14 to 2017/18). Notifications peaked in week 7 of 2019 with 489 notifications, and then again in week 12 with 471 notifications, after which there has been an unsteady decline to 247 notifications in week 18 (figure 1). Whilst weekly notification rates are lower this season than for each of the seasons since the upsurge in scarlet fever was first noted (2013/14), they remain elevated relative to the levels seen in the preceding seasons. GP consultations showed a similar pattern of seasonal decline [2].

Scarlet fever notifications showed some variation across England, with all areas reporting lower rates of scarlet fever compared with the last 5 years (figure 2). Rates of notified scarlet fever cases so far this season were highest in the North West at 22.4 per 100,000 population, followed by the North East (22.1), Yorkshire and the Humber (21.8), and the East Midlands (20.4). The East of England had the lowest rate at 12.8/100,000.

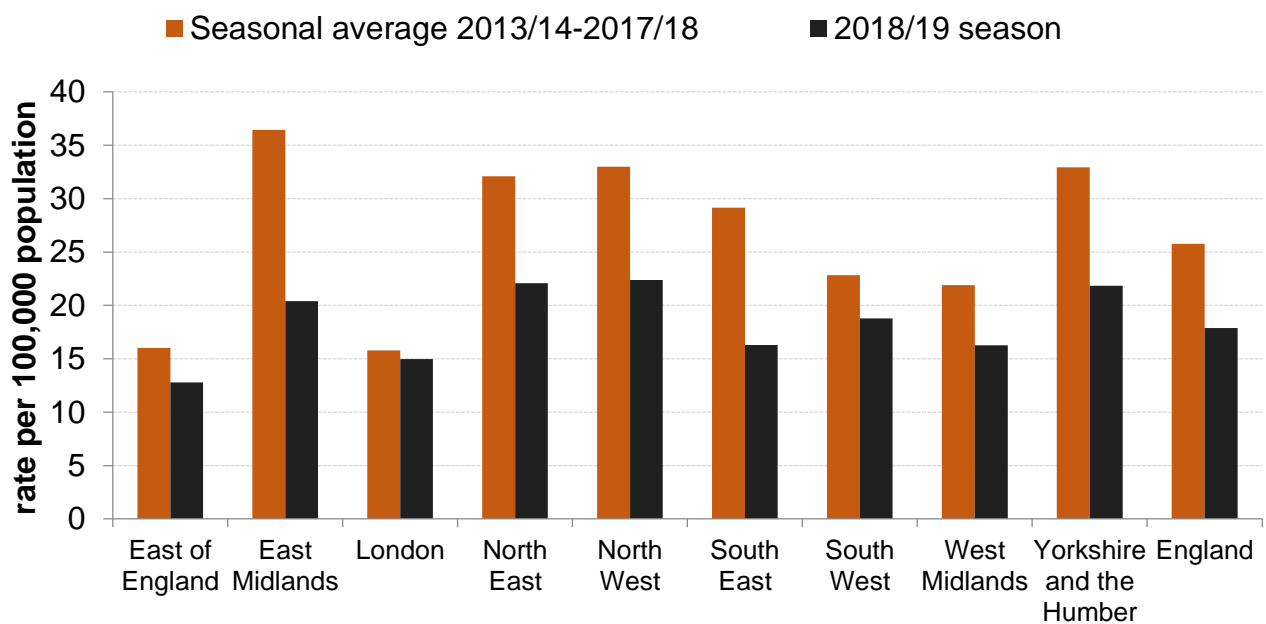
The age distribution of scarlet fever cases notified so far this season remains similar to previous years, with 89% being children under 10 years (median 4y; range <1y to 85y) and a near equal split between males (49%) and females overall.

Figure 1. Weekly total and average number scarlet fever notifications in England, 2018/19 *



*Dashed line indicated numbers may increase as further notifications expected.

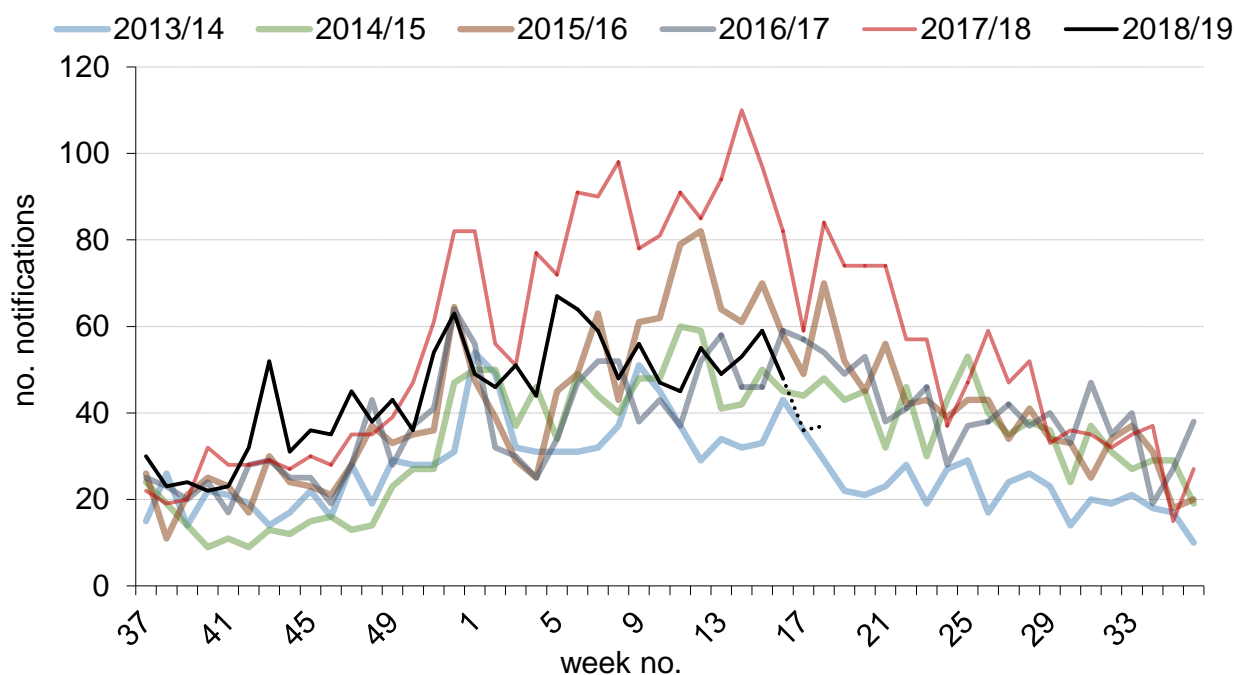
Figure 2. Regional rates of scarlet fever notification in England in 2018/19 and the seasonal average of the last five years (weeks 37 to 18)



Invasive Group A streptococcal infection

So far this season (week 37 to 18 2018/19), there have been 1,500 notifications of iGAS disease reported through laboratory surveillance in England, 8% higher than the average (1,386) for the previous five years (range 1,015 to 2,040) and 26% lower than the same point last season (2,040)(figure 3). The highest rates this season were reported in the Yorkshire and Humber region (4.8 per 100,000 population), followed by the North East (3.1), North West (3.0) and West Midlands (2.8/100,000). The lowest was reported by the East of England and South East regions at 2.1/100,000.

Figure 3. Weekly laboratory notifications of invasive GAS infection, England, 2013/14 onwards*



*Dashed line indicated numbers may increase as further notifications expected.

The median age of patients with iGAS infection to date this season is 57 years (range <1y to 104y), within the range seen at this point in the preceding five seasons (54y to 61y). Ten per cent of infections were in children (<10y), slightly lower than the average for the previous 5 seasons (14%; range 13% to 16%).

Analysis of reference laboratory iGAS isolate submissions indicates a diverse range of *emm* types identified in 2019 (January to May 2019) with a continued dominance of *emm* 1 (19% of referred isolates). Other frequently identified types this season are *emm* 89 (11%), *emm* 12 (6%), *emm* 66 (6%) and *emm* 108 (4%), the latter two being very uncommon historically.

Antimicrobial susceptibility results from routine laboratory surveillance indicate erythromycin non-susceptibility in 10% of GAS sterile site isolates, higher than at the same point in the last five seasons (4-6%). The susceptibility testing of iGAS isolates against other key antimicrobials (tetracycline, 17%; clindamycin, 8%) indicate a slight elevation in resistance at this point in the season although isolates remain universally susceptible to penicillin.

Discussion

The scarlet fever activity this season has remained lower than seen in each successive year since the first upsurge in 2013/14, although still elevated compared to preceding seasons as far back as 1980. A real reduction in scarlet fever activity this season is further supported by lower rates of GP consultations (compared with last season) [2].

GPs, microbiologists and paediatricians are reminded of the importance of prompt notification of scarlet fever cases and outbreaks to local Public Health England (PHE) Health Protection Teams (HPTs), obtaining throat swabs (prior to commencing antibiotics) when there is uncertainty about the diagnosis, and exclusion of cases from school/work until 24 hours of antibiotic treatment has been received [3]. Close monitoring, rapid and decisive response to potential outbreaks and early treatment of scarlet fever is vital, especially given the potential for complications associated with GAS infections. [4,5]

While the number of iGAS cases notified through routine laboratory surveillance in England is lower than seen last season, notifications remain at the high end of what would be expected. Clinicians, microbiologists and HPTs should continue to be mindful of potential increases in invasive disease and maintain a high index of suspicion in relevant patients as early recognition and prompt initiation of specific and supportive therapy for patients with iGAS infection can be life-saving.

Invasive disease isolates and those from suspected clusters/outbreaks should be submitted to the Respiratory and Vaccine Preventable Bacteria Reference Unit at Public Health England, 61 Colindale Avenue, London NW9 5HT.

Relevant guidelines/FAQs are available on the PHE website, as follows:

- Guidelines on infection control in schools and other childcare settings, including recommended exclusion periods for scarlet fever and guidelines on management of scarlet fever outbreaks, can be found at:
<https://www.gov.uk/government/publications/scarlet-fever-managing-outbreaks-in-schools-and-nurseries>
- FAQs on scarlet fever can be found at:
<https://www.gov.uk/government/collections/scarlet-fever-guidance-and-data>
- Guidelines for the management of close community contacts of invasive GAS cases and the prevention and control of GAS transmission in acute healthcare and maternity settings are also available here: <https://www.gov.uk/government/collections/group-a-streptococcal-infections-guidance-and-data>

Weekly notifiable disease reports are published each week for a timelier update, these can be found at: <https://www.gov.uk/government/collections/notifications-of-infectious-diseases-noids>

References

1. PHE (2019). [Group A streptococcal infections: first report on seasonal activity in England, 2018/19. Health Protection Report 13\(8\).](#)
2. PHE (2019). [GP in-hours consultations bulletin: 2 May 2019, week 17.](#)
3. PHE (2017). [Guidelines for the public health management of scarlet fever outbreaks in schools, nurseries and other childcare settings](#)
4. Lamagni T *et al* (2018). Resurgence of scarlet fever in England, 2014–16: a population-based surveillance study. *The Lancet Infectious Diseases* **18**(2) (February): 180-187.
5. Watts, V. *et al* (2019). Increased risk for invasive Group A Streptococcus disease for household contacts of scarlet fever cases, England, 2011–2016. *Emerging Infectious Diseases* **25**(3): 529-537.

About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and are a distinct delivery organisation with operational autonomy to advise and support government, local authorities and the NHS in a professionally independent manner.

About Health Protection Report

Health Protection Report is a national public health bulletin for England and Wales, published by Public Health England. It is PHE's principal channel for the dissemination of laboratory data relating to pathogens and infections/communicable diseases of public health significance and of reports on outbreaks, incidents and ongoing investigations.

Public Health England,
Wellington House,
133-155 Waterloo Road,
London SE1 8UG

Tel: 020 7654 8000 www.gov.uk/phe

Twitter: [@PHE_uk](https://twitter.com/PHE_uk) Facebook: www.facebook.com/PublicHealthEngland

Queries relating to this document should be directed to:

HCAI-AMR Service,
National Infection Service, PHE Colindale,
61 Colindale Avenue, London NW9 5EQ.

© Crown copyright 2019

You may re-use this information (excluding logos) free of charge in any format or medium, under the terms of the Open Government Licence v3.0. To view this licence, please visit: [OGL](https://www.nationalarchives.gov.uk/ogp/) or email: psi@nationalarchives.gsi.gov.uk. Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

Published: **May 2019**
PHE publications
gateway number: **2018823**

PHE supports the UN
Sustainable Development Goals

