



White Paper

Stafford District General Hospital Legionella outbreak – lessons learnt?

April 2025



Stafford District General Hospital Legionella outbreak – lessons learnt?

It is 40 years to the month since an outbreak of Legionnaires' disease at Stafford District General Hospital caused over 100 cases of the disease and at least 20, possibly 28, deaths (figures from different sources vary).

Where there had been numbers of outbreaks in the UK previously, the result and scale of the Stafford Hospital outbreak saw a not dissimilar response to that we have more recently seen over the Grenfell Tower fire in 2017, with direct Government involvement, a committee of inquiry (chaired by Sir John Badenoch) and subsequent reports.

In this whitepaper:

[Introduction](#)

[Cases and clusters](#)

[Legionella management](#)

[In summary](#)



Introduction

One of the conclusions drawn from the work was that a combination of circumstances contributed to the outbreak and these included:

“defects in the design and construction of engineering services, problems during the commissioning of the air conditioning plant, lack of knowledge and understanding of the sophisticated engineering plant, shortcomings in maintenance including chlorination, and the weather conditions.”

Two years later, in 1987, we saw the first published HSE guidance in the form of “EH 48 Legionnaires’ disease.” - the first CIBSE guidance TM13 appeared too.

Further outbreaks including those at the BBC (1988) and Picadilly Circus (1989), led to Legionella remaining a very visible health and safety issue. Consequently, in 1991 the first version of the Approved Code of Practice (ACoP) (L8) and guidance HS(G)70, published by the HSC and HSE respectively.

Wind forward to today, and from a regulatory perspective, more change has occurred with the requirements expanding (Legionella case reporting, cooling tower notification and covered management regulations, for example), L8 now on version 4 and the guidance – which has become the HSG 274 series - extending to well over 200 pages (the original was closer to 50), the creation of the Legionella Control Association (LCA) and introduction of standards for sampling, testing and risk assessment.

We would also like to think, from a management perspective, the subject of Legionella control is much better understood too. Certainly, there are a considerable number of products and services offering all sorts of options now available to dutyholders, that were not available decades ago.

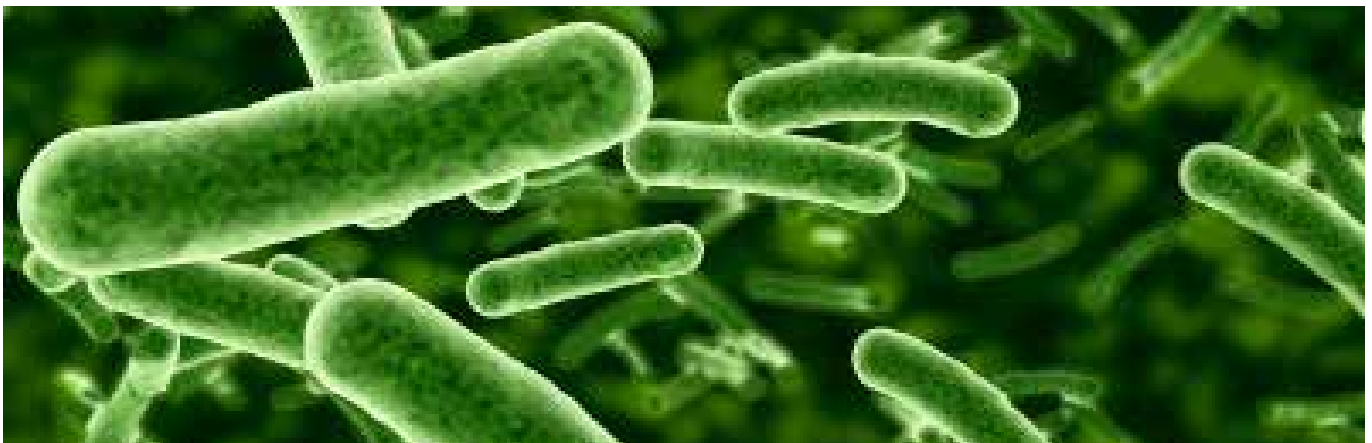
We must also recognise that the core requirements of L8, risk assessment, management responsibilities, written scheme, training, records of control and the duties of others have developed too. But it is how we use and implement them that is key to success and how much has that changed?

[Legionnaires’ disease: The control of legionella bacteria in water systems. Approved Code of Practice and guidance on regulations L8](#)

[HSG274 - Legionnaires’ disease - Technical guidance - Part 1](#)

[HSG274 - Legionnaires’ disease - Technical guidance - Part 2](#)

[HSG274 - Legionnaires’ disease - Technical guidance - Part 3](#)



Cases and clusters

The intervening years has also seen numbers of large outbreaks continue to occur in Great Britain, not least in Barrow in Furness (2002) – 180 cases, 7 deaths, South Wales (2010) – 22 cases, 2 deaths and Edinburgh (2012) – 92 cases, 4 deaths, these being the largest outbreaks to date in England, Wales and Scotland respectively.

The number of cases of Legionnaires' disease reported each year in England and Wales is rising with 604 confirmed cases of Legionellosis reported to the National Enhanced Legionnaires' Disease Surveillance Scheme (NELSS) in England and Wales in 2023. This compares to an average of approx. 531 (2017-2019). It was less than 200 typically in the 1980s.

Clusters/outbreaks (defined as two or more cases linked by proximity in residence or work and timing (within 6 months)) accounted for 121 cases in 2023, 20.0% of total cases observed, an increase of 9.3% over the previous year.

To date, more globally, outbreaks and increasing number of cases are being reported in:

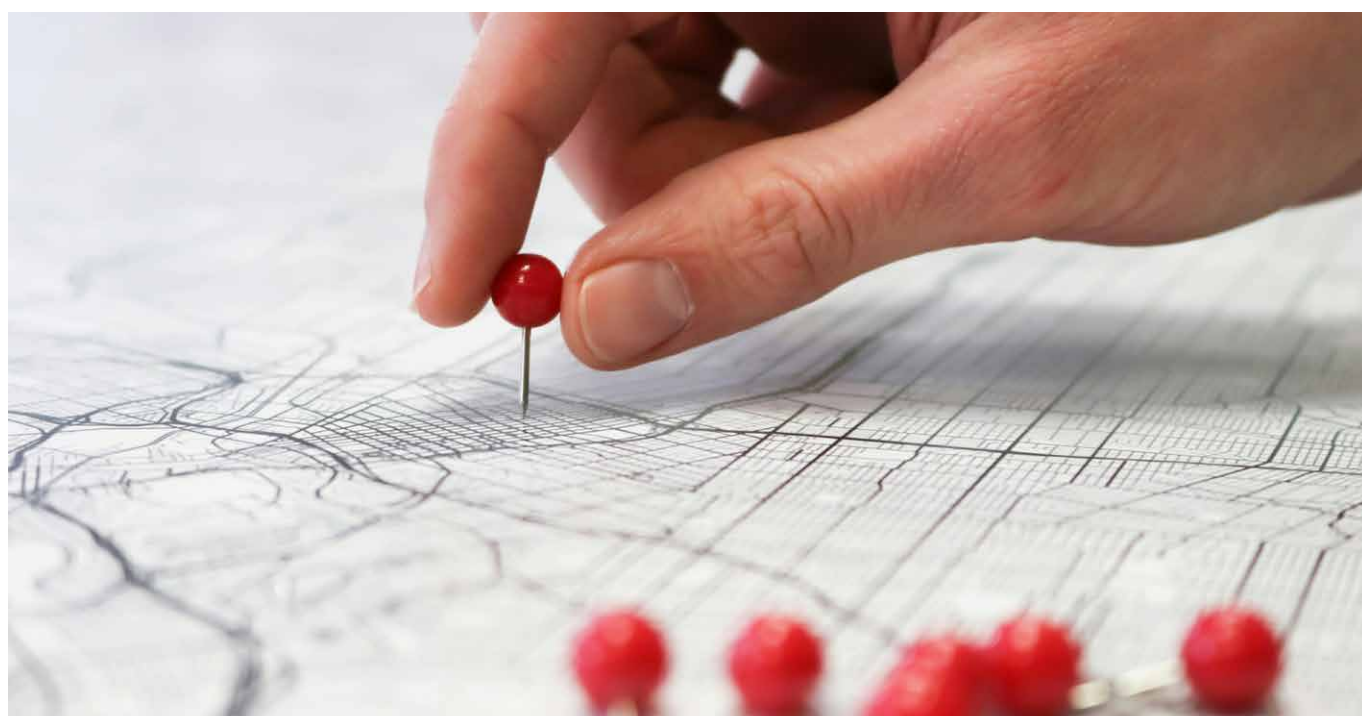
- **Australia** – with NSW Health South Eastern Sydney Local Health District Public Health Unit investigating 12 cases of Legionnaires' disease centred on the Sydney CBD;
- **Czechia** - over 200 cases of legionellosis reported in the first quarter of 2025 (twice as many as 2024); and
- **USA** - the CDC reporting "in general, reported cases of Legionnaires' disease have been increasing since the early 2000s, with a peak in 2018. While reported cases dropped during the first year of the COVID-19 pandemic, they rebounded starting in 2021."

[Legionellosis in residents of England and Wales: 2023 to 2024 - Official statistics announcement - GOV.UK](#)

[Update: Legionnaires' CBD outbreak | South Eastern Sydney Local Health District](#)

[Legionnaires' Disease Cases Surge in Czech Republic](#)

[Legionellosis Surveillance and Trends | Legionella | CDC](#)



Legionella management

Stafford, and indeed the outbreaks in Barrow, Wales and Edinburgh, were all associated with evaporative cooling systems. However, we now know that hot and cold water systems tend to pose the most likely risk of outbreaks in the UK (HSE – HEX 12/07). The increase in use of spa baths must not be discounted either. In fact, any water system capable of generating fine droplets of water (aerosols), operating between 20–45 °C, where water is stored and/or recirculated and where deposits such as rust, sludge, scale and biofilm can occur, present a risk. Water systems need to be appropriately managed and have effective controls in place.

The “shortcoming in maintenance, including chlorination” comment from the Stafford outbreak report put a focus on the operational control and what has developed to what we have in place today, would be unrecognisable from what we would have seen in the 1980s.

The greater problem lies in the management, with the biggest cause of failure resulting from three main aspects:

- **Risk assessment** - (absent/not suitable and sufficient/out of date);
- **Written scheme of management** – (absent/not suitable and sufficient/out of date/in need of review); and
- **Lack of appropriate training.**

Whether recent enforcement action, intervention programme, or indeed the HEX12/07 report, the last decade continues to highlight these areas being where system management is found more than wanting.

Perhaps the mindset that a risk assessment is a commodity, rather than an investment is part of the problem, so it ends up skewing the decision-making process? As a badly taken sample never gives a good result, so a badly done risk assessment is a poor foundation to build your controls on.

Similarly, how many times has a written scheme been provided which is nothing more than an extract from the appendix of HSG 274 (pick either or both parts). Reading paragraphs 58 to 62 of L8, explains in some detail what is really needed and why the above extracts are not. Your written scheme when properly produced becomes your reference for successful management, based on the risk assessment and tailored to the systems and services being managed.

Finally training, this is needed for all involved in the process be they duty holder, responsible person or those delivering the operational controls. It must cover not just the what and how, but the why if all are to understand their roles in the management process, as well as the relevance and importance of the tasks they are carrying out.

These tactical areas must of course work together with the strategic (policy, roles and responsibilities), operational controls and record keeping if the delivery of your Legionella management is to remain effective and make sure that both in-house and external contractors are working to common objectives. Our experiences show that when these processes are credible, accurate, properly aligned, documented and proactively managed, they work successfully.

In summary

Perhaps a recent article in The Lancet (Volume 6, Issue 4101031 April 2025) sums the situation up best, "The global resurgence of LD (Legionnaires' disease) emphasises the need for a coordinated response to close crucial gaps in diagnosis and prevention. Enhanced diagnostic capabilities and rigorous preventive measures are essential to reduce the burden of LD and mitigate future outbreaks."

[Global surge of Legionnaires' disease in 2024: urgent call for heightened awareness and preparedness - The Lancet Microbe](#)

And equally, as a House of Commons Employment Committee report back in 1988 stated, "While the bacterium which causes Legionnaires' disease probably cannot be totally eradicated from water systems, the circumstances which encourages growth are known and it can be controlled."



Assurity Consulting is the UK's leading independent consultancy specialising in workplace health, safety and environmental solutions. As your partner in compliance management you will reap the benefit of our more than 35 years' experience of helping customers across a range of different sectors – manage their compliance responsibilities as effectively as possible. If you need any help with your health, safety or environmental compliance, or if you would like more information on the services Assurity Consulting offer, please get in touch.



Call us on
+44 (0)1403 269375



Email us at
info@assurityconsulting.co.uk



Visit our website
assurityconsulting.co.uk