

[front page](#)

[news](#)

[back issues](#)

[comment](#)

[letters](#)

[advertise](#)

[subscribe](#)

[about us](#)

[contact us](#)

[back page](#)

## Managing pool water: The Leisure Review round table

In Wales environmental health officers have been leading a research programme into the standards of management and control of cryptosporidium in swimming pool environments. With the final report scheduled for publication in Spring 2014, *The Leisure Review* was invited to host a round table discussion to explore the implications of cryptosporidium for the management of swimming facilities in Wales and the rest of the UK.

### Around the table

**Dr Sarah Jones**, team leader (health improvement) at Cardiff Council's public protection, regulatory and supporting services department

**Richard Lamburn**, technical support officer (pool plant), STA

**Andy Page**, technical director, Complete Pool Controls Ltd

**Robbie Phillips**, STA, pool plant consultant

**Kevin Williamson**, pool management consultant

“With no professional body taking an obvious lead in the field, professional competencies are being left to the market and allowed to drift... the status of pool management has declined alarmingly.”

Taking its seat at the table at the Ynysawdre swimming pool in Bridgend, *The Leisure Review* began by posing the most obvious questions first: why cryptosporidium and why Wales? With such a wealth of expertise and experience around the table, both questions were addressed and answered in detail.

Cryptosporidium is a protozoan parasite that causes an infection called cryptosporidiosis, the most common symptom of which is mild to severe diarrhoea. As a predominantly waterborne disease cryptosporidium is a particular problem for swimming pools and drinking water because the oocysts (or spores) are resistant to chlorine-based disinfectants.

In August 2009 an outbreak of cryptosporidiosis associated with a leisure pool occurred in Merthyr Tydfil in south Wales involving 106 cases (45 confirmed). An investigation of sporadic cases of cryptosporidiosis in south-east Wales indicated an elevated number of cases over the same time period but investigations did not provide any definitive information on the aquatic behaviour and source of infection. In 2010 a national pilot study was set up by all 22 Welsh environmental health departments and Public Health Wales to establish the feasibility of collecting more detailed, definitive information about cases associated with swimming pools.

The results of the study were published and presented at the 2012 HPA conference (Health Protection Agency, which is now part of Public Health England, an executive agency of the Department of Health) and provided useful insight to the behaviour of swimmers. However, evidence from the research and elsewhere suggested that an additional focus on pool management would be useful. A national health and safety project commenced in April 2013 to assess the levels of

[www.theleisurereview.co.uk](http://www.theleisurereview.co.uk)

The Leisure Review is supported by:



The Leisure Review is written, designed and published by:

**tlr.comms**  
TLR Communications Limited

management within swimming pools throughout Wales. Data collection and input is currently being finalised and by early December information on 362 pools had been collected from all 22 local authorities in Wales. It is expected that the results of this work will be publicised widely within the profession.

Those around the table who might describe themselves as involved in swimming pool management were pleased that environmental health officers (EHO) were taking an interest in pool facilities, particularly in light of the authority vested in an EHO to demand and enforce action. It seems that while there had been some initial defensiveness among some facility operators who had not been used to this level of interrogation of their processes and protocols, the wider leisure industry had been highly supportive of the research, particularly in the area of making sure that EHO had the relevant knowledge of pool water treatment processes.

However, there was a wider concern that the profile and status of pool water management as an essential element of a properly functioning leisure industry was being eroded. By way of example it was noted that comparatively few pool specialists had been in evidence among exhibitors at the most recent Leisure Industry Week exhibition and only one of the major leisure management contractors. Vending and fitness, areas that are often thought of as the cash cows of the leisure industry, were strongly represented but pool water safety did not seem to be high on the agenda for many visitors.

While those round the table acknowledged the financial realities of running modern leisure facilities, they were adamant that the public health issues should be of paramount importance for all operators: "Everything is fine until something goes wrong. An outbreak of cryptosporidium can kill your business but knowledge in the industry is dying. People are so busy focusing on profit and loss that they can miss the point. The pool is an integral part of any leisure business but if you abuse it you can get closed down. Attendances decline and some pools that have been closed have never recovered their levels of income."

There was a general agreement that the scale of the problem was not generally understood across the modern leisure industry and that the technical skills were not as widely available or as widely employed as they used to be. Where once a pool might have had a pool plant engineer and two plant attendants, the contracting culture has meant that such staffing is largely a thing of the past. Few contractors are found on pool water treatment courses and knowledge of safe operating procedures is not as widespread as it should be. One of the most alarming issues was felt to be the failure to identify responsibility for pool water management issues. While legionella legislation has made identification of responsibility very clear, this approach has not been applied to other areas. Often responsibility for pool water management is allowed to drift to the lowest levels of the organisation and those higher up the organisation often do not know that they are responsible. If there were Health and Safety Executive guidance on pool water management, which those round the table felt there should be, named responsibility should be on the front page.

It was emphasised that standards at the majority of leisure centres are generally high but there is evidence of poor practice in some cases. There is more likely to be cause for concern in private pools, such as those in schools, health clubs or hotels, where knowledge of pool water protocols may not be embedded within the organisation. The growth of baby swimming classes in such pools has prompted increasing concern among parents with small children while also putting increased pressure on pool water systems and those who should be managing them. It was noted that under-fives may well be the source of cryptosporidium in a pool and also be among those most at risk. It was also noted that some parent and toddler providers often upgrade existing site-specific

operational procedures to the benefit and safety of their own and other classes attending the same pools.

It was felt that hydrotherapy pools, often to be found on hospital sites for use by physiotherapy departments, were particularly at risk in light of the high water temperatures and the difficulties in assigning responsibility for the pool water management protocols. In a number of cases responsibility for water management has been found to fall between the physiotherapy department and the site engineers, with roles ill-defined and no real appreciation of the potential risk to patient health.

Conscious that good practice among users and operators can prevent cryptosporidium entering the pool, the STA is working to raise awareness of pool water management issues among swimming teachers, lifeguards and parents. There was also the suggestion that such issues should be highlighted more and incorporated into pool lifeguard training so that lifeguards know how to react to potentially harmful incidents and have the authority to close a pool should it be necessary.

While it was generally agreed that management standards at local authority pools are usually among the best, there was a concern that training was beginning to slip down the agenda for some of the companies contracted to manage local authority facilities. Such an approach, it was suggested, could be a reflection of the changing emphasis within the facilities themselves. Where once the pool was the focal point of the leisure centre, the financial realities often make the fitness suite, gym and studios the most important parts of the operation. The evolution of leisure centres from service providers to business operations provokes fears that financial concerns could be allowed override proper pool management procedures. Would an operator or contractor be under pressure not to close a pool, perhaps to deal with a faecal incident, for example, if the cancellation of a full programme was going to affect the bottom line? It is to be hoped that it would not but such financial pressures might be brought to bear if staff were insufficiently aware of the public health issues.

Efforts to bring down expenditure are common within most businesses but there was concern around the table regarding increasing evidence of operators taking the decision to avoid using elements of their pool water treatment systems in an effort to cut costs. While operators may be persuaded that this is a false economy, there are other areas in which a concerted information and education campaign could be of benefit. One example would be to tackle the misconception, prevalent among the public and some operators, that chlorine treatment will kill everything. Cryptosporidium is largely unaffected by common levels of free chlorine found in pools and other recreational facilities but this often is not understood by key stakeholders.

Another area requiring education is about good practice for users to avoid bringing cryptosporidium into the pool; posters warning of the implications of diarrhoea and how long users should wait to use the pool after a bout of intestinal illness could have a significant impact. The Welsh cryptosporidium research programme has trialled the use of posters with some effect but the campaign continues. Work is currently progressing on the development of a rating scheme to highlight the need to manage cryptosporidium within the pool environment and the STA will be launching a compliance mark next year.

The question of where pool operators might look for independent, authoritative advice prompted a pause in the conversation. After a moment's reflection, there was a general agreement round the table that currently the first ports of call are likely to be organisations such as the Pool Water Treatment Advisory Group or the STA, whereas a decade ago the obvious starting point would have been the Institute of

Sport and Recreation Management (ISRM). The Managing Health and Safety in Swimming Pools document is still regarded as definitive but specific advice is now required for hydrotherapy pools, which have become increasingly popular and set specific problems for operators.

In discussing the available advice, it became clear that there are widespread concerns regarding an erosion of management standards and a declining recognition of the importance of pool management. With no professional body taking an obvious lead in the field, professional competencies are being left to the market and allowed to drift. Where once there was an Institute of Baths and Recreation Management (later the ISRM) and respected posts with job titles such as bath superintendent, the status of pool management has declined alarmingly. While members of the Institute of Leisure and Amenity Management (ILAM) may well have enjoyed joking about IBRM members as 'spanner men' or 'plumbers', they at least recognised that public safety and successful leisure operations required in-depth knowledge and experience of how the pool worked. Now the concern is that pool management is done more by luck than judgement. Many facilities, it was noted, will not have a qualified pool operator on site as a matter of course. The STA is now actively promoting the need for recognition and application of risk management for the cryptosporidium threat.

With the loss of such experience and a downgrading of the status of pool management too many pool operators are now unaware of the responsibilities of managing pool facilities and too many are ill-equipped to ensure proper pool water standards are maintained. In addition the prevalence of design-and-build contracts for new pools can leave even brand-new facilities without adequate provision for appropriate pool water treatment. Several examples were offered of supposedly state-of-the-art pools where basic pool water treatment procedures were made impossible by the constraints imposed by the building. This again suggests a lack of training and knowledge among certain design and construction organisations. It seems a significant number do not appreciate the basic design concepts required by pool operators to manage a pool safely and efficiently.

As the discussion was brought to a close, we were reminded that the Welsh national research programme into cryptosporidium in swimming pools continues, with researchers hoping that a report on the findings will be available in the spring of 2014. It is a report that may well resonate widely across the leisure sector as many within the sector reflect on how far their industry has come in recent decades and perhaps wonder at the direction of travel.

### ***The Leisure Review, December 2013***

© Copyright of all material on this site is retained by *The Leisure Review* or the individual contributors where stated. Contact *The Leisure Review* for details.