

Read all about it... It can be awkward when a patient asks you about a report in their favourite tabloid detailing an amazing research breakthrough or a 'cutting-edge' new treatment / test and you don't know what they are talking about! So this section fills you in on the facts.

Steam treatment for big prostates approved on NHS

BBC News – 21 August 2018

This story hit just about every newspaper and news outlet this Autumn and the impact has been quite remarkable; I cannot recall ever having been asked about a urology-related news story by patients as much as this one. The story broke following the decision of the National Institute for Health & Care Excellence (NICE) to approve the use of so-called 'steam treatment' for benign prostatic hyperplasia (BPH). The technology in question has been around for a few years now, but is only currently available at a few hospitals and private clinics within the UK. For those that have not been following this, the treatment in question is 'convective RF thermal therapy', but in many ways is similar to transurethral needle ablation (TUNA). The setup consists of a control unit (comparable in size to a diathermy machine) and a transurethral component which is used with a telescope. The device uses radiofrequency pulses to generate steam from sterile water, this 'jet' of steam is directed by the surgeon, transurethrally (using a retractable needle), into the prostate adenoma causing thermal damage to the cells which then sets off a three-month process of resorption. At the end of the three-months, resorption of the excess prostate adenoma should lead to a better lumen in the prostatic urethra and reduction in patient symptoms.

The treatment can take as little as five minutes to perform and the manufacturers (a USA-based company) tout it as potentially an 'office procedure'; certainly from a UK point-of-view, day surgery is very feasible and a general anaesthetic is optional.

The evidence for this treatment comes from a three-year prospective, multicentre, blinded trial of the procedure (vs. sham surgery) in 197 men. One hundred and thirty-six were

treated with RF-based therapy. All enrolled patients had International Prostate Symptom Scores (IPSS) of 13 or over, Qmax of 15 or less, and prostate volumes of 30-80cc. The published data is good. Patients had significant improvements in IPSS and Qmax at three months postoperatively, with no significant adverse events (just under 20% experienced some short-lived dysuria). Mean Qmax improved by 50% over baseline.

The critique of the study would be the potential for uncertainty in long-term results. The data available suggests that there may be some slight drop-off in Qmax after 24 months (from a 50% improvement down to a 39% improvement), however there were also a fair few patients who were excluded, retreated or lost during follow-up – 72% were followed to 36 months. This raises the possibility of attrition bias. This could of course cut either way; perhaps some patients dropped out of follow-up because they were so happy with the results, or it could be that the reported 4.4% retreatment rate was actually slightly higher, but retreatment was sought elsewhere.

In any event, what is clear is that the evidence (and indeed NICE) backs this as being a safe and effective treatment for BPH. What is also clear is that patients really want the choice of minimally invasive surgical options for BPH and I think we are approaching a point at which each department has to be able to offer something along these lines. The overall costing and tariff structure for this treatment means it is very slightly better than a transurethral resection of the prostate (TURP) financially for a department, but there are a great many other treatments available in the minimally-invasive BPH field. I guess time will tell, but currently there is certainly a lot of buzz about this one.

Bacteria becoming resistant to hospital disinfectants, warn scientists

The Guardian – 1 August 2018

I reported back in January 2017 about research that indicated the exposure of *Klebsiella* to chlorhexidine could potentially breed antibiotic resistance. Eighteen months later, this story in *The Guardian*, provides troubling reading once again. Research in Melbourne, Australia was published this autumn in *Science Translational Medicine*. The research team (led by Dr Stinear) took 139 *enterococcus faecium* isolates from their lab which had been saved between 1997 and 2015. *Enterococcus* is of course a significant cause of nosocomial infections. The team tested cultures of each of these strains for alcohol sensitivity (i.e. How well would alcohol hand rub kill these pathogens?). The results, in a nutshell, were that 'modern' *enterococcus* was 10 times more resistant to being killed by alcohol. These strains have been identified to have accumulated mutations which assist with carbohydrate metabolism, conferring this advantage.

Whilst there is no evidence that we have a problem as yet, this article (and the previous chlorhexidine piece) do give concerning 'food for thought'. Perhaps in the future, we may actually see a situation where alcohol hand rub isn't liberally smeared on every visitor daring to enter the hospital? Given that there seems to be a growing tendency towards acquired resistance towards these infection-control adjuncts – sensible rationing and stewardship of their use may be a necessary step in maintaining their usefulness. However, there's still good old-fashioned soap and water, so probably no need to panic too much, for now.

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