Evening Medical Update: Infectious Diseases and Genitourinary Medicine October 2023

What's new in HIV – Dr Neil Ritchie, Honorary Clinical Senior Lecturer, University of Glasgow

I have a patient who has a chronic leg ulcer, tissue culture grew Serratia, pseudomonas and enterococcus. Patient well. Do these culture reports need treating or should the report be disregarded as a mixed infection of no consequence?

Infection of ulcers is a clinical diagnosis based on pain, spreading erythema, systemic signs, etc. Swabs should not be used to make the diagnosis of infection because inevitably, a wound will not be sterile and so some bacteria will be picked up on the swab. Swabs should be used to help with antibiotic choice once a diagnosis of infection has been made clinically.

In this case, the organisms listed are very unlikely to be causing infection. If infection has been diagnosed clinically, there would still be a judgement call regarding whether to cover these organisms (for example with piperacillin/tazobactam) or to assume these are colonising the wound and that more typical organisms like S. aureus and beta-haemolytic streptococci are more likely to be the cause.

What is appropriate oral dose of citronella or offloading in salmonella typhi infestation.

I don't know what this means, I'm not sure if there has been an autocorrect problem and the queation should read "What is the appropriate dosre of ciprofloxacin in salmonella typhi infection?"

If this is the question then the answer would be 500mg bd although ciprofloxacin should not be used empirically for enteric fever because of widespread resistance. Preferred options instead are azithromycin and ceftriaxone. Recent emergence of cephalosporin resistance in Pakistan means that meropenem is now the preferred empiric therapy for enteric fever in patients who have travelled in Pakistan.

Do you recommend treating repeated (more than 3) E. coli-positive UTIs?

If the patient has recurrent UTIs then these should be treated. However, it is important to confirm that the patient has genuine UTI and not asymptomatic bacteriuria which generally should not be treated (except in pregnancy).

Assuming the patient does have genuine recurrent UTIs then treatment, along with consideration of an underlying cause, for example undiagnosed diabetes or a structural abnormality of the urinary tract should be considered. Prophylaxis has a role in some patients although often just results in resistance.

Did POETs study include all infecting organisms e..g staph aureus or was it just strep viridans group?

POET included all common causes of infective endocarditis – any streptococci, S. aureus, enterococci and coagulase negative staphylococci. Only gram negative pathogens and fungi were excluded apart from some very rare causes. The study also allowed inclusion of prosthetic valve endocarditis.

Discussion re long term IV treatment: should the insertion of a PICC line and length if treatment be highlighted in treatment escalation plans? The management of IV access can be a source of distress and harm in frail elderly patients and their relatives.

I agree that IV access can be tricky, particularly in the frail elderly who are at significantly higher risk of PICC associated complications including line sepsis. I would always support considering this as part of a treatment escalation plan. I think it is important to be pragmatic and so I would often support considering alternative options such as early IVOST or (off licence) use of long acting glycopeptides such as dalbavancin or oritavancin in such patients. MDT discussion is often helpful.

There are so many patients who have PCN allergy recorded in their PMS. When we ask them, they can't recall what happened which means they were allergic many years back. Can we still give them PCN antibiotics?

Precisely, it's worth having a look at the SAPG algorithm (https://www.sapg.scot/guidance-qi-tools/quality-improvement-tools/penicillin-allergy-de-labelling/) which provides a framework to help make these decisions. The literature is clear that patients with an uncertain history of a reaction that occurred in the distant past with no positive evidence that it was severe (i.e. they were not admitted to hospital with it) are incredibly unlikely to have a serious reaction to an orally administered dose of penicillin.

Do we need to find OD formula for antibiotics for an effective OPAT service? Does this put patient at risk of under treatment?

Once daily antibiotics are certainly more convenient for OPAT. Most services use significant amounts of teicoplanin, ceftriaxone and ertapenem for this reason. There is also the possibility of using flucloxacillin and piperacillin/tazobactam as continuous infusions using elastomeric pumps that are changed once daily.

Some antibiotics have to be given multiple times per day though and the feasibility of this depends on patient factors and the setup of your OPAT service. In Glasgow we regularly use ceftazidime or meropenem for patients with pseudomonas infection who can be taught to self-administer although this requires a committed patient.

Regarding antibiotic allergy, is there any benefit of a skin test before starting an antibiotic?

Skin testing is an important element of allergy assessment for those with moderate to high risk of allergy, particularly if the reported adverse event occurred more recently (within months to a short number of years). However, skin testing requires experience and isn't usually available. Our work in developing the SAPG algorithm was focused on identifying a group of patients who were so low risk that skin testing could be omitted. This means that interested clinicians without the necessary experience to do skin testing can do delabelling safely. In practice, the number of reported penicillin allergy cases suitable for delabelling using the algorithm without skin testing is around 80-90%.

What's new in STI – Dr Daniel Clutterbuck, Consultant in Genitourinary Medicine and Clinical Lead for Sexual and Reproductive Health, Chalmers Sexual Health Centre, Edinburgh

To what extent do you think that a decline in condom use is responsible for the increase in STIs? And can we reverse this?

Evidence: There is very good evidence that consistent and correct condom use protects against viral STI and good evidence that it protects against bacterial STI at the individual level. Inconsistent use and condom errors significantly reduce the protective effects at population level. There has been a significant decline in condom use observed in all population subgroups studied since about 2000, possibly accelerating from 2013. I think that this is likely to be a factor in the rises in STI observed. In terms of reversing the decline, behaviour change in populations tends to be largely independent of health interventions (so increased condom use and reduction in partner numbers was observed in GBMSM in response to HIV, and very clearly illustrated again last year in response to Mpox). There is good evidence that behaviour change interventions can reduce partner numbers and increase condom use, and moderate evidence that they can reduce STI. We continue to provide safer sex advice routinely in clinics and promote Sex and Relationships education SRE for young people. However the level of intervention required to produce a measurable effect (eg 6 x 20 minute sessions over 3 months) is not sustainable in the UK healthcare environment (or any other for that matter).

Opinion: The 'anti-gender- anti-choice-anti-sexuality' movement in all forms which is very effectively and systematically driven through political channels and online and social media is the biggest threat to sexual health and wellbeing for young people of all genders and sexual orientation. STIs are just a marker of that.

Is there any link between the use of prep and the recent increased rates of STIs?

Short answer, probably, but the evidence is very mixed and the actual rise is likely to be modest. There are very high rates of STI seen in populations using PrEP and rises in STI diagnoses are seen in the months following PrEP initiation in PrEP using GBMSM (very little evidence for other groups). However there are important confounders – Longitudinal data (including in Scotland) shows that PrEP users have significantly higher rates of bacterial STI both prior to and following PrEP start. In addition, it is routine for PrEP users to have full STI testing every three months as part of PrEP follow up. So the detection rate for asymptomatic STI is massively increased by testing 4 times a year as opposed to average 1-2 times per year prior to PrEP. Studies that attempt to correct for this show a much smaller rise in STI. It is also worth noting that a significant majority of the STI diagnosed are in a small subpopulation of PrEP users, which unsurprisingly are heterogenous group, consisting broadly of the 'risk averse' who take precautions already but want additional protection and the 'at risk' who have high STI and HIV risk and want to avoid HIV. There is a really good (but long!) summary just published on AIDSMAP by my colleague Gus Cairns. A systematic review of the literature is underway as part of the ongoing revision of the BASHH UK Safer Sex Guideline.

PrEP and sexually transmitted infections | aidsmap

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