and documenting patients' antimicrobial therapy regularly. As a tertiary/quaternary centre we treat complicated immunocompromised patients; we are unlikely to lower the burden of infection. Approximately 75% of antimicrobial prescribing was in the ICU and cancer and transplant setting, however we must optimise the use of antimicrobials and demonstrate good antimicrobial stewardship. This data will act as a baseline for a subsequent audits which will be carried out using the newly implemented EPIC® patient management system.

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P34 AN AUDIT OF THE TESTING AND DOCUMENTATION OF GENETIC MUTATION M1555A>G AND AMINOGLYCOSIDE PRESCRIBING

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Aims Amikacin is an aminoglycoside antibacterial, associated with both ototoxicity and nephrotoxicity.¹ It is used at the Trust first line for many indications, such as sepsis and pre-operative prophylaxis. A mutation in the m1555A>G gene has been linked to an increased risk of aminoglycoside induced ototoxicity², therefore making these patients susceptible to hearing damage when treated with aminoglycosides.³ The residual effect of this damage is both profound and rapidly progressive with resulting permanent hearing loss occurring even when the doses administered remain in the therapeutic window.⁴

Trust guidelines containing amikacin advise that genetic testing should consistently be carried out and where this is not possible, clinicians should discuss and receive advice from the microbiology team for an alternative option. Genetic testing can take up to two weeks to be reported causing a logistical problem for patients requiring the medication usually on a more urgent basis.

The aim of this study was to assess whether the Trust routinely provides genetic testing for mitochondrial DNA mutation m.1555A>G abnormality and to determine whether prescribed antibiotics are appropriately following the results of this testing, including any resulting patient safety issues.

Method The data was collected retrospectively from all genetic testing results since 2008 using prescribing data from the implementation of JAC and also an analysis of patient notes to check audiology referrals. The comparative standards used were 100% of positive test results should be recorded on patient prescribing record, this process is currently manual. 100% of patients who have received an aminoglycoside have prior testing for the m1555A>G mutation, 100% of patients who have received an aminoglycoside tested negative for the m1555A>G mutation, 100% of patients who tested positive for the m1555A>G mutation have not received an aminoglycoside, either before or after the test result.

Results

- 3815 patients were tested for the m.1555A>G mutation between 2008–2018 and included for audit, 12 patients (0.31%) tested positive for the genetic mutation

- 100% of these patients had their positive result recorded as an aminoglycoside allergy on JAC
- 5 of these 12 patients had been treated with aminoglycosides at GOSH (42%)
- 1 of these patients received Amikacin before genetic testing

Conclusion This audit will inform future decisions regarding Trust guidelines containing amikacin. The low incidence of this mutation will be useful in discussion on moving forward in providing testing for patients. It reassures users that the current reporting system is robust and results are reliably recorded. Of the 5 patients who had a positive genetic mutation and received an aminoglycoside it was not clear if this was an intentional, informed risk benefit decision. Further work is being done to ensure these patients have and are followed up.

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P35 PAEDIATRIC RHEUMATOLOGY VIRTUAL BIOLOGIC CLINIC (VBC)

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Aim To improve the overall process for the prescribing of biologics within the paediatric rheumatology service. The VBC would help achieve the following:

- Successful implementation within the service.
- Streamlined process for cost effective prescribing of biologics in line with national guidance.
- Ensuring all patients receive the appropriate pre-biologic checks and documentation of core set criteria (where possible) to ensure safe prescribing.
- Ascertaining other funding mechanisms for patients who do not meet national guidance or commissioning criteria.

Methods The VBC was modelled on the adult service and the process comprises of the following:

- Patients starting or switching biologic therapy are highlighted in clinic.
- Patients who require continuation in therapy are highlighted by the pharmacy homecare team.
- For new patients, pre-biologic checks are ordered and routine bloods are requested for those continuing therapy.
- VBC comprises of a 2 hour multidisciplinary team (MDT) meeting between a consultant paediatric rheumatologist or senior fellow, specialist nurse and pharmacist.
- Patients referred to VBC are reviewed against our biologics clerking sheet. Ensuring pre-biologic checks have been completed, routine bloods have been checked, core set criteria has been recorded, patient is compliant with national guidance and that the appropriate Blueteq form has been completed.