Vancomycin Quality Improvement: Introducing A Prescription Chart Across An NHS England Trust

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Scientific Findings

• Questionnaire regarding vancomycin prescribing in NLAG was distributed to junior doctors.
• Responses (N=12) indicated trainees generally not confident in prescribing vancomycin.
• Agreed introduction of prescription chart across trust would make prescriptions safer.
• Chart designed in conjunction with medical staff and pharmacy.
• Junior doctors re-surveyed following introduction of prescription chart with education regarding its use.

Discussion

• Trainees asked to rate their confidence in vancomycin prescribing pre (N=12) and post (N=15) introduction of vancomycin chart using a likert scale of 1-5 (where 1 = not confident and 5 = very confident).
• Unpaired T test comparing pre and post chart responses showed statistically significant increase in average confidence levels related to vancomycin prescribing ($P<0.0001$).
• Mean Pre Chart Confidence - Post Chart Confidence = - 2.12
• 95% confidence interval of difference: from -3.00 to -1.26
• Trainees commented that they felt the information they needed to prescribe vancomycin safely and confidently was now easier to interpret with the introduction of the new prescription chart.

Conclusion

• Introduction of a standardised prescription chart can be achieved over 3-4 months.
• Process took longer than anticipated due to a number of factors, including obtaining approval from: medicines & therapeutics, key pharmacist roles, design and reprographics, governance and trust documentation standards.
• Engaging junior doctors in design and implementation of a prescription chart can demonstrate a significant improvements in confidence when prescribing.
• Has potential to increase patient safety.
• Should be re-audited in around 12 months times to evaluate whether there has been significant improvement in prescribing of initial / loading dose of vancomycin.

Introduction

Background

• Vancomycin is a glycopeptide antibiotic, active against gram positive bacteria. It has a narrow therapeutic index with dose limiting ototoxicity and nephrotoxicity.
• In North Lincolnshire and Goole (NLAG) NHS Foundation Trust, vancomycin is currently prescribed on a standard hospital drug chart.
• This practice is contrary to ‘Path Links’ partner United Lincolnshire Hospitals.
• Previous audit at NLAG had recommended introduction of a dedicated vancomycin treatment sheet.
• Of the patients suitable in this audit for inclusion (N=14), only 57.1% had received a loading dose, of which only 75% were correct. Initial maintenance dose was correct in only 15.4% of cases.

Aims

1. Design & introduce a standard vancomycin prescription chart across NLAG NHS Foundation Trust.
2. Ensure full compliance with NLAG ‘Medicines & Therapeutics Committee’.
3. Seek feedback from junior doctors across NLAG regarding vancomycin charting and prescribing.
4. Educate doctors, nurses and pharmacists prior to introduction of a dedicated vancomycin prescription chart across NLAG.

Plan

1. Sample NLAG junior doctors thoughts on vancomycin prescribing.
2. Design a vancomycin prescription chart for use across NLAG.
3. Achieve approval for use of chart through Medicine & Therapeutics Committee with chief pharmacist.
4. Print charts and distribute across NLAG.
5. Discuss introduction with NLAG staff.