

M7

**IMPACT AND EVALUATION OF ELECTRONIC CLINICIAN-TO-CLINICIAN ADVICE SERVICE (E-CONSULTATION)**

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**Background** Electronic clinician-to-clinician advice service (E-consultation) is a telehealth modality<sup>1</sup> that enables the primary care clinicians to seek advice from specialists through a shared electronic system (System one). This is a mode of non-face to face consult and for less complex cases this service potentially reduces unnecessary clinic referrals and provides an efficient specialist input thus improving patient care.<sup>2,3</sup> This was first piloted in NHS Yorkshire and Humber in 2012. In agreement with clinical commissioning group (CCG), our trust implemented this in March 2015 and we have evaluated the impact of this service.

**Method** We retrospectively reviewed all patients who had an e-consultation (March 2015 – January 2017). Patient demographics and clinical information were retrieved from system one. The referral to clinician response time, content of the referrals, the outcome of the e-consultations and the cost analysis based on nationally agreed tariff (Respiratory treatment code- 340, £23 per e-consultation) was evaluated.

**Results** 324 patients (63+/-16 years, males- 54%) had an e-consultation. Clinicians completed these referrals in 3 days (IQR=1–7 days, range=0–32 days). The content of the e-consultations were classified under five domains- investigations (n=91, 28%), radiology (n=114, 35%), medications (n=32, 10%), miscellaneous (n=6, 2%) and mixed (n=81, 25%). 63% (n=204) of the referrals were initiated by the general practitioner, 25% (n=81)- practice nurses and 12% (n=39)- trainees. 32% (n=105) of the e-consultations were recommended for a formal clinic review. Since implementation, this service has generated over £7000 to the trust.

**Discussion and conclusions** This novel service is available for routine, non-urgent specialist advice only and is easy to access. This new approach does not seem to have a significant burden to our other ongoing clinical activities. It provides an opportunity to screen potential formal referrals and identifies the need for specific investigations prior to treatment. However a third of all e-consultations were recommended for a clinic review. Further discussion with the CCG is ongoing to improve the service by having a criteria led referrals and to promote training and awareness of this service.

**REFERENCES**

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M8

**CAN RELIABLE DELIVERING OF THE 48-HOUR ANTIMICROBIAL REVIEW RESULT IN A REDUCTION IN THE NUMBER OF DAYS A PATIENT STAYS ON INTRAVENOUS ANTIBIOTICS ON A RESPIRATORY UNIT? RESULTS FROM A TRAINEE LED QUALITY IMPROVEMENT PROJECT (QIP)**

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**Introduction and Objectives** Effective antimicrobial stewardship aims to reduce healthcare associated infections such as hospital-acquired pneumonia, prevent misuse and overuse of antibiotics, minimise the development of resistance<sup>1</sup> and shorten hospital stay. The need for antibiotics should be reviewed at 48 hours of starting antibiotic is the focus part of the “start smart then focus” approach.<sup>2</sup> The aim of our QIP was to improve the percentage completion of the 48 hour antimicrobial review box section of our newly designed inpatient drug charts to over 90% across two 30-bed acute respiratory wards within 7 weeks.

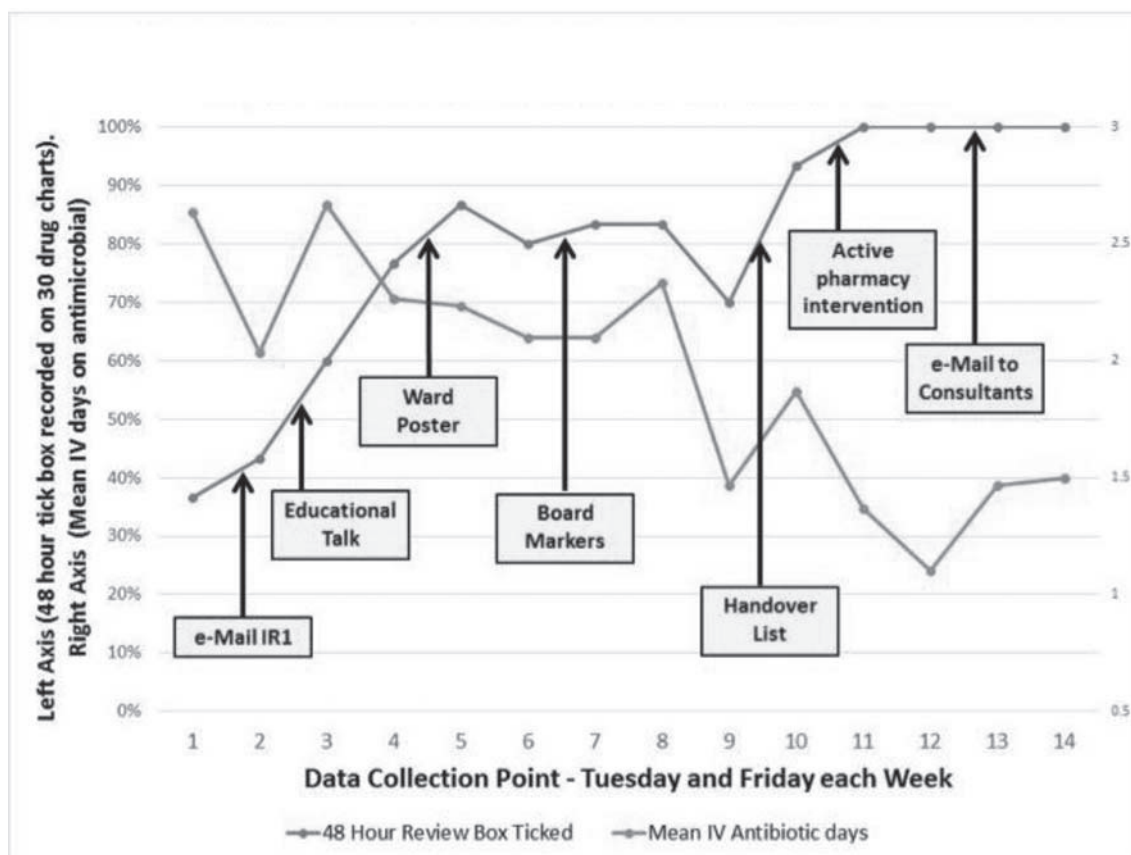
**Methods** 30 sequential antibiotic prescriptions were examined twice weekly for a 7 week period (QI Period 10/01/2017–24/02/2017). The Outcome measures were: i) 48 hour box ticked ii) Days on IV-antibiotics. Process measures were iii) Signature recorded iv) Date of 48 hour review. The Balancing measures were: v) Indication and vi) Duration of antibiotic recorded. 14 measurement cycles with 7 PDSA interventions took place.

**Results** During the QI period, 334/420 (79%) of 48 hour Antimicrobial Review boxes were ticked. Commonly ticked options were; Continue Antibiotics (n=230), IV to PO (n=88) and Stop (n=15). Commonest treatment indications were: Community acquired pneumonia (28%) and lower respiratory tract infection (22%). We achieved and sustained 100% completion of our 48 hour review with an associated reduction of IV antibiotic use by mean of 1.1 days (figure 1). 48 hour signature recorded on the drug chart increased from 37% to 100%. Balancing measures remained unaffected during QI period.

**Conclusions** The PDSA Interventions with greatest impact were 1) Educational talk by consultant and 2) Pharmacy engagement to highlight non-completion. The QI methodology can be replicated to other respiratory wards to improve antimicrobial stewardship. Appropriate de-escalation may reduce unnecessary use of IV antibiotics.

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**Abstract M8 Figure 1** Run chart displaying 48 hour review tick box and mean number of days on IV antimicrobials over 14 measurement cycles.

**M9** **QUALITY IMPROVEMENT PROJECT: CAN WE IMPROVE RECORDING OF TARGET OXYGEN SATURATIONS AND PRESCRIBING ON A RESPIRATORY WARD IN ACCORDANCE TO NEW BRITISH THORACIC SOCIETY (BTS) OXYGEN GUIDELINES?**

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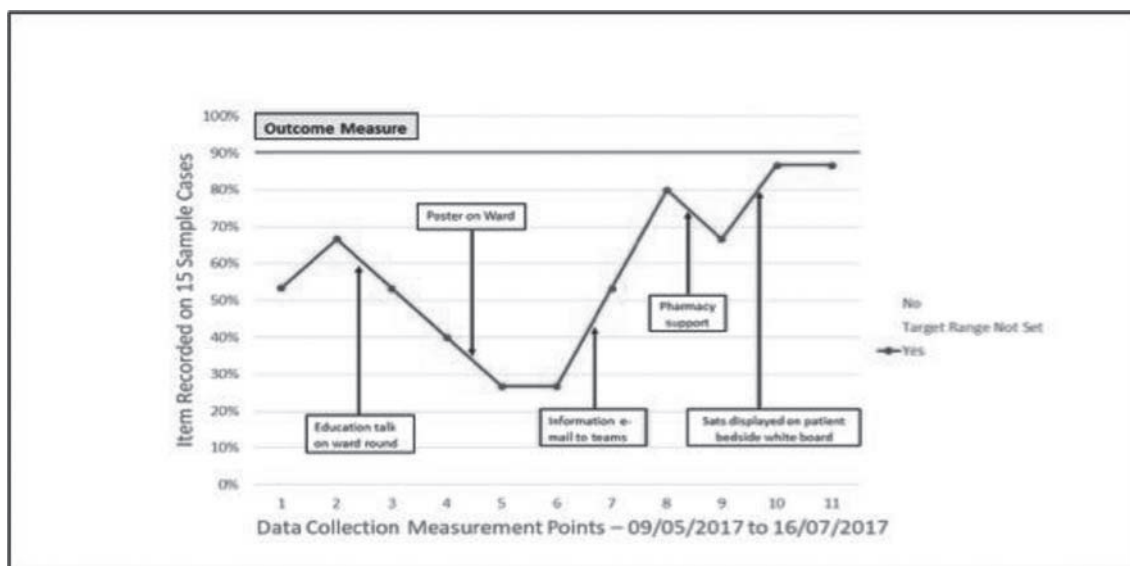
**Introduction** The BTS advises target oxygen saturations of  $\geq 94\%$  for all adult patients excepting those at risk of hypercapnic respiratory failure – where oxygen should be restricted to achieve saturations of  $88\%–92\%$ <sup>1</sup>. In the 2015 BTS audit however, although 14% of all UK inpatients received oxygen, only half of these patients had a prescription and 30% had oxygen delivered inappropriately.

**Method and Objective** We aimed to improve oxygen prescribing and setting of target saturations on drug charts with appropriately delivered and monitored oxygen therapy. Our main outcome measure was that “In 90% of cases, oxygen saturations recorded on nursing observation charts will match prescription on drug chart”. 15 patient records were sampled weekly from an acute respiratory ward over three months. Process measures were: i) Is oxygen prescribed on the drug

chart? ii) Are target saturations recorded on the drug chart? 48 hour antibiotics review was the balancing measure. Five PDSA interventions took place; a) an educational announcement b) poster c) weekly email showing ward performance d) pharmacist prescription reviewing target ranges and e) displaying target saturations at patient bedsides.

**Results** Eleven cycles of data were collected. Of 165 medical case notes reviewed, the three most common respiratory conditions were COPD-35%, pneumonia-21% and lung cancer-11%. 22% had no respiratory condition as presenting complaint or previous history. On admission, 20% were hypercapnic on arterial blood gas. At baseline, only 46% of drug charts had completed oxygen prescriptions and 66% target saturations. Following PDSA interventions this peaked to 100%. Our outcome measure, do oxygen saturations on observation charts match target saturations on drug charts, improved to nearly 90% from initial baseline 53% (figure 1).

**Conclusion** This QIP has shown that simple interventions can improve oxygen prescribing and appropriate delivery, although our target of 90% is yet to be achieved. The PDSA intervention with the most positive effect on the outcome measure was sharing our improvements via email to the entire ward team. We aim to sustain these Results beyond this project with further PDSA interventions and implement these practices in other acute and general medical wards within the hospital.



**Abstract M9 Figure 1** Do oxygen saturations on observations chart match target saturations on drug chart?

**M10 DEMONSTRATING THE POTENTIAL ROLE OF COMMUNITY PHARMACISTS IN IMPROVING CARE OF COPD PATIENTS**

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**Introduction and Objectives** Although there is some realisation of the potential for community pharmacists to help patients manage their conditions, finding ways to demonstrate this potential to health professionals in different roles and sectors is not easy. We conducted a semi-quantitative analysis of support offered to COPD patients within normal limits of practice in community pharmacies, with the intention of sharing our findings as widely as possible. These findings subsequently formed the basis of an infographic that can be distributed in a variety of scenarios.

**Methods** The study, in NW London, involved 18 pharmacies. Over a 4 week period in February-March 2015, pharmacists undertook consultations in the pharmacy with consenting patients who were receiving medicines prescribed for COPD. Patients were asked questions from a semi-structured questionnaire. Information was collected and action taken to provide high value interventions and referral, where appropriate. The collected data were analysed and key findings identified for sharing in an infographic.

**Results** At the consultation, of 135 patients, 56% were provided with inhaler training, 65% were offered Medicines Use Reviews, 17% received guidance regarding rescue packs, 28% were referred to GPs and 82% of smokers (n=39) were referred to stop smoking services. 84% of patients had received prior flu vaccination. Areas of clinical concern identified included poor inhaler technique, poor familiarity with pulmonary rehabilitation services, higher than expected ICS use and medication or other issues requiring referral to GPs (28%). The ratio of men to women (1:0.7) was consistent with published data, but the ethnicity of patients did not match the pattern expected in the locality on the basis of Public Health and census information.

**Conclusions** The analysis yielded evidence of how community pharmacists can both assist in the management of individual patients with COPD, and provide a snapshot of support in a locality. Summarising this evidence as an infographic that can be distributed digitally, and at professional and educational meetings, may hasten recognition of the potential usefulness of this type of support and the value of community pharmacies as a resource. The approach will be applied to other conditions, subject to evaluation of effectiveness.

**M11 THE USE OF ASTHMA CARE BUNDLE PROFORMAS CAN IMPROVE QUALITY OF CARE IN ACUTE ASTHMA ADMISSIONS**

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**Introduction** Despite the introduction of dedicated asthma services and targeted therapies, asthma exacerbations remain a common cause of hospital admission with significant utilisation of health care resources.

**Aim** To determine whether asthma care bundle proformas contribute to improved quality of care in adult patients admitted to Glenfield Hospital with an asthma exacerbation

**Method** Data collected at Glenfield hospital as part of the national BTS Adult Asthma audit in 2011 and 2012, prior to the introduction of asthma care bundles, was compared to data collected using a similar methodology in 2016, when both admission and discharge bundles had been introduced. The Results were analysed using Chi-squared Testing.

**Results** Asthma Care bundles were used in 64.4% of asthma admissions audited in 2016. When compared to 2011 and 2012, prior to the introduction of care bundles, there was a statistically significant increase in the proportion of patients having a documented peak flow on admission from 73.1% in 2011/2% to 94.4% in 2016 (p=0.001). There was also an improvement in the frequency of inhaler technique assessment on discharge with an increase from 52.5% in 2011/2% to