

'did-not-attend' (DNA) rates are particularly high for primary care asthma reviews<sup>2</sup>. Increasing demand for our weekly difficult asthma clinic means that routine appointments are at a premium. This led us to attempt to reduce the DNA rate. Our asthma specialist nurses began to interview patients that failed to attend over the telephone within a week of their scheduled appointment.

**Aim** To ascertain whether telephoning patients that DNA clinic leads to an attendance at the next scheduled clinic appointment.

**Methods** Review of database generated from contacting patients that DNA asthma clinic between April 2011 and March 2012.

**Results** There were a total of 153 missed appointments. We attempted to contact the patient following their missed appointment in 101 cases. We were able to contact 51 patients, of these 20 (39%) attended their next appointment. We tried but failed to contact 50 patients of whom 5 (10%) attended their next appointment. We did not contact 52 patients for various reasons, 10 (19%) attended their next appointment.

**Conclusions** Telephoning patients that DNA asthma clinic led to a two fold increase in attendance at subsequent clinics. Each phone call lasted approximately ten minutes and there were often several attempts required before contact was made. The patient's asthma control was assessed during the call and the outcome was recorded in the case notes.

Despite that fact that telephoning patients led to a reduction in subsequent missed appointments, this is a time consuming and therefore costly exercise and 24/51 (47%) of patients missed their subsequent appointment despite having been contacted. Non-attendance may be a reflection of poor concordance which in itself may be contributing to the patients' difficult asthma.

#### References

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## COPD care bundles, IT systems, service analysis and beyond

### P281 IMPACT OF AN ELECTRONIC CHRONIC DISEASE MANAGEMENT SYSTEM FOR CHRONIC OBSTRUCTIVE PULMONARY DISEASE

doi:10.1136/thoraxjnl-2012-202678.373

A Sykes, M Nyadzayo, S Elkin. *Imperial Healthcare NHS Trust and Imperial College London, London, UK*

**Introduction and Objectives** The chronic disease management system (CDMS) is an electronic patient record developed by healthcare professionals (HCP) across inner northwest London for care of patients with COPD. It was introduced across Imperial NHS and Central London Community Healthcare in January 2012. The aim was to improve patient management by promoting real time information sharing across and between organisations.

The objectives of this study were to assess:

1. The acceptability and use of the COPD CDMS by HCPs.
2. Whether healthcare professionals using the system felt it benefitted patient care.

**Methods** All healthcare professionals (42) in the integrated COPD MDT were asked to complete an anonymous questionnaire at

month 3 after the introduction to paperless working and again four months (month 7) later to assess whether opinions had changed.

**Results** 35/42 members of the COPD MDT completed questionnaires in March 2012 and 28/42 in July 2012.

Initial questionnaire: 33 (94%) of healthcare professionals were using the COPD CDMS with 17 (52%) multiple times a day. The most frequent reasons for using the COPD CDMS was that it gave access to timely information pertinent to patient care (25/89%) and increasing information sharing across teams (25/89%). 19 (58%) felt it improved patient care and 10 (35%) users felt it improved the patient's experience. 18 (55%) rated the system as very or extremely useful.

Repeat Questionnaire: Responses in the follow up questionnaire were similar to the initial results with a similar number using it (89%) and rating it as very or extremely useful (52%). The system was also being used more out of hours (17% - 32%) and there were increases in the number of users who believe it improves patient experience (45%) and care (67%). Table 1 indicates factors influencing the use of COPD CDMS by HCP.

**Conclusions** Introduction of an electronic patient record is acceptable to the integrated COPD teams. The majority will use from day 1 with no drop off of use over 7 months. Over time, out of hours usage increases and the belief using the electronic record improves patient care increases. This information will help others who plan similar changes across their care communities.

**Acknowledgements** NW London CLAHRC.

### P282 AN INTEGRATED IT SYSTEM FOR COPD BETWEEN PRIMARY, SECONDARY AND COMMUNITY CARE USING SYSTEMONE

doi:10.1136/thoraxjnl-2012-202678.374

<sup>1</sup>DJ Powrie, <sup>1</sup>R Goodwin, <sup>2</sup>D Allan-Smith, <sup>2</sup>E Paddison, <sup>1</sup>M Ali, <sup>1</sup>S Ansari, <sup>1</sup>KG Lingam, <sup>1</sup>AG Davison. <sup>1</sup>Southend University Hospital, Westcliff on Sea, UK; <sup>2</sup>South Essex PCT

Southend Hospital and South Essex PCT have been developing an integrated COPD service for over a decade. Information sharing between providers remained a barrier to improved services. SystemOne is a medical management system used by 70% of practises in our area and utilised by community services. We decided to develop a COPD system for primary, secondary and community care using SystemOne.

**Development** A business case was developed and agreed by the IT strategy groups of the PCT, hospital trust and community trust. A project manager was appointed who worked with clinical leads from the hospital and PCT. The clinicians who would utilise the system including hospital consultants, respiratory nurse specialists, GPs, community matrons, community oxygen team and early supported discharge team all contributed to the design of the template. The system records demographic information, respiratory and smoking history, pertinent respiratory investigations such as spirometry and blood gases as well as whether the patient has been referred for pulmonary rehabilitation, smoking cessation or has a self management plan. At each clinical consultation symptoms and management changes are recorded. Tasks can be sent between members of the team for example allowing community matrons to send queries to hospital consultants.

**Implementation** All GPs agreed to participate in the scheme. Patients were required to sign a form consenting to sharing of clinical information. The project manager undertook training of all the clinical groups involved as well as hospital secretarial and clinic staff. Community staff were provided with laptops enabling remote access. After a training period of 5 months the system went live in March 2011. We now have 1522 patients registered on the system. 13 patients refused consent to the sharing of information.

**Benefits** The system has allowed improved communication between members of the team. The template has served as a management checklist ensuring that important components of COPD care are not forgotten. The system has been used to identify patients with very severe disease for discussion at a severe disease MDT and been associated with a 5% reduction in outpatient attendances.

**P283 RELATIONSHIP BETWEEN THE RANKING OF COPD OUTCOME MEASURES (RE-ADMISSIONS AND EMERGENCY BED DAYS) AND RESPIRATORY SERVICE PROVISION ACROSS THE 13 PCTS IN THE EAST OF ENGLAND (EOE)**

doi:10.1136/thoraxjnl-2012-202678.375

<sup>1</sup>AG Davison, <sup>1</sup>L Jongepier, <sup>1</sup>L Paddison, <sup>2</sup>K Smith, <sup>2</sup>JR Flowers. <sup>1</sup>NHS Midlands and East, Cambridge; <sup>2</sup>England, Quality Intelligence East, Eastern Public Health Observatory, Cambridge, England

The White Paper "Equity and Excellence. Liberating the NHS" stated that the health service must be focused on two key parameters i) outcomes and ii) the quality standards that deliver them. As there is little data examining their relationship in COPD we have examined this in the EoE.

**Methods** Two COPD outcome measures from INHALE (www.inhale@nhs.uk), emergency bed days for COPD admissions per 1000 PCT population for 2010–11, and % emergency re-admissions within 28 days for 2010–11, have been ranked from 1–13 for all PCTs in the EoE. A questionnaire has been developed by the EoE Respiratory Team to assess respiratory service provision. This was completed by all the respiratory networks in the 13 PCTs in April 2012. The presence of 4 services in the PCTs ranked in the top 6 have been compared to their presence in the bottom 7 PCTs. 11 PCTs have one local hospital.

**Results** All COPD admissions were under the care of the respiratory team in 50% of hospitals ranked in the top 6, compared with 43% of those ranked in the bottom 7. A discharge bundle was in place in 33% of hospitals in the top 6, compared with 57% in the bottom 7. An early discharge scheme was in place in 66% of those in the top 6, compared with 57% in the bottom 7. An integrated care pathway existed in 33% of those in the top 6, compared with 100% in the bottom 7.

**Conclusion** We had expected to find a relationship but these results suggest that the existence of various services cannot be used as a surrogate for outcome measures. It would be expected that the existence of these services would improve the outcomes. The services were present in April 2012 but may have been introduced after or during 2010–11 when outcomes were measured. Auditing is also necessary to show that services are effective. Outcomes may also have improved in some areas after the introduction of services but those PCTs may still be ranked below others. In future trend analysis will be more useful than simple ranking.

**P284 QUALITY IMPROVEMENTS AND COST SAVINGS ASSOCIATED WITH THE INTEGRATION OF COPD CARE IN COVENTRY**

doi:10.1136/thoraxjnl-2012-202678.376

<sup>1</sup>CM Gelder, <sup>2</sup>M Horn, <sup>2</sup>J Horn, <sup>3</sup>G Washington. <sup>1</sup>University Hospitals Coventry & Warwickshire NHS Trust, Coventry, UK; <sup>2</sup>Godiva Clinical Commissioning Group, Coventry, UK; <sup>3</sup>Coventry Primary Care Trust, Coventry, UK

**Introduction** Coventry had high admissions rates for COPD, and poor co-ordination between primary and secondary care. There was generally low interest in COPD and poor attendance at educational

meetings. An audit revealed that 74% of individuals with COPD admitted to hospital made contact with their practice in the month before admissions and 58% had received 3 or more courses of antibiotics in the year prior to admission, indicating the potential to improve care quality and reduce costs.

**Methods** We reviewed current provision against NICE standards and the emerging National COPD Strategy, identified gaps and agreed priorities. In parallel a patient and carer consultation was undertaken using focus groups, interviews and questionnaires. This information was used to formulate a model that integrated primary and secondary care and shared clinical pathways. Key was the establishment of a consultant led community based COPD team.

To allow individual practices to benchmark themselves against NICE standards and then support them to develop their own improvement plans, a COPD management tool (POINTS) was introduced into most practices.

Financial incentives (QP 8 and QP 11) were used to drive key elements, in particular improved recording of exacerbations, the use of rescue packs and self-management plans. Education for Primary Care Nurses was made "user-friendly" and delivered as monthly 'bite size' education sessions, with GP reimbursement for nurse time.

**Results** There has been a high level of support and engagement from primary and secondary care. COPD is now the top local LTC priority. During the first year admissions and re-admissions have reduced by approximately 15%. More than 90% of COPD outpatient activity is now in the community (including post discharge follow up).

Patient surveys have shown very high levels of satisfaction.

The project has been cost neutral in its first year (including savings from Oxygen Register cleansing but excluding savings from moving outpatient care to the community team) and the CCGs project savings of approximately £300,000 and £600,000 at 24 and 36 months.

**Discussion** This demonstrates that service redesign can deliver rapid improvements in the quality of care with significant cost savings potential.

**P285 BEYOND CARE BUNDLES: THE DEVELOPMENT OF A STRUCTURED ADMISSION MODEL**

doi:10.1136/thoraxjnl-2012-202678.377

C Thompson, A Robinson, P Duncan. *NHS Improvement, Leicester, UK*

Hospital admission for acute respiratory disease accounts for 40% of the cost of managing respiratory disease in the UK. Data from national and European respiratory audits suggest the quality of care received is highly variable, and in the UK only 50% of people admitted for exacerbation of COPD will be managed by respiratory physicians. Admission to hospital is a significant event for someone with respiratory disease and represents an opportunity for the patient to receive a comprehensive and high quality respiratory review and interventions. Through project work with five project sites a structured admission model was developed and implemented through service improvement and process redesign. The components of the model include:

- Appropriate and timely (within 3 hours of admission) access to non-invasive ventilation (NIV)
- Access to respiratory specialist within 24 hours
- Proactive identification and management of high impact service users
- Ensuring every patient receives the key aspects of care during their admission (e.g. smoking cessation, inhaler technique cheque, self management plan)