


DO GUIDELINES INFLUENCE EMERGENCY DEPARTMENT STAFF BEHAVIOURS AND IMPROVE PATIENT OUTCOMES? EVALUATION OF A MULTI-FACETED INTERVENTION FOR THE IMPLEMENTATION OF LOCAL ACUTE EXACERBATION OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE GUIDELINES

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ABSTRACT: Oral Presentation (11:30 a.m.)

- Purpose:** We wished to assess how the implementation of local Chronic Obstructive Pulmonary Disease (COPD) guidelines affects emergency department (ED) staff awareness, knowledge, and use of such guidelines, and patient outcomes, including treatment failure and rates of return to the ED.
- Methods:** This study was conducted at a tertiary hospital ED. Local COPD guidelines were developed by a quality improvement group. Guidelines were posted in the department and educational sessions were provided for staff. We conducted a retrospective chart review and looked at 1849 patient visits from Dec 2011 to Feb 2012 and Dec 2012 to Feb 2013. All visits with a diagnosis of chronic COPD or Acute Exacerbation of Chronic Obstructive Pulmonary Disease (AECOPD) were included in the study. Data was collected using a standardized abstraction tool and captured exacerbation severity. For non-admitted patients, we recorded 30-day return rates and treatment failures occurring within 30 days of presenting to the ED. Pre- and post-implementation data was analyzed by Fisher's exact tests.
- Results:** For ED physicians, the survey response rate was 78, 79 and 58% at pre-, post-implementation, and 10-month follow up, respectively. Prior to implementation, 14.3 % (95% CI 4.1-35.5 %) were aware and 0 % (0-18.2 %) used guidelines. After implementation, 90.9 % (71.0-98.7 %) were aware and 81.8 % (60.9-93.3) used guidelines. At 10 months, 100 % (76.1-100 %) were aware and 100 % (82-100 %) used local guidelines. Similar trends were seen among nurses and respiratory therapists. To assess actual guideline use, 130 visits were evaluated: 51 visits pre-implementation, and 79 post-implementation. Prior to implementation, 57 % (43-70 %) received bronchodilators, systemic steroids and antibiotics. Following guideline implementation, 57 % (46-67) received the respective treatments. For patient related outcomes, 86 non-admission patient visits were evaluated: 35 visits pre-implementation, and 51 post-implementation. Prior to guideline implementation, 17 % (8-33 %) failed their initial AECOPD treatment, compared to 10 % (4-21 %) following guideline implementation, and 23 % (12-39 %) returning to the ED in the pre-implementation period while 14 % (7-26 %) returning post-implementation.
- Conclusion:** Our introduction of local COPD guidelines was successful at increasing awareness, knowledge and use of best practice guidelines among ED staff. At ten-month follow-up, increased awareness, knowledge and use among ED staff was maintained; however, in practice, guideline adherence,



treatment failure, and return rates did not improve significantly after our local guideline implementation. This supports the general trend in the literature showing that passive educational interventions alone are not sufficient to change physician behaviours or improve patient outcomes. While still a relatively new field, knowledge translation initiatives offer a more rigorous and holistic approach to facilitating behavioural change, and may be more effective than traditional passive educational interventions.