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| **Exploring the recording of COPD management in Australian Primary Care**  |
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| **Background:** Suboptimal recording and coding of COPD-related events and assessments within Electronic Medical Records (EMR) can lead to difficulty in future disease management decisions. Unrecognised COPD diagnoses and exacerbations are associated with future exacerbations and negative patient outcomes. **Aim:** To investigate EMR-recorded COPD diagnoses, exacerbations, and care management in the Australian primary care population. **Methods:** EMR data was extracted from the Optimum Patient Care Research Database Australia (OPCRDA) for patients with potential and diagnosed COPD. EMR coded, keyword and free text data were analysed to examine recorded COPD diagnoses, appearance of COPD presence without diagnosis, evidence of spirometry or imaging, potential COPD exacerbations, current therapy, and therapy optimisation. A hierarchal algorithm was used to categorise the recorded appearances of potential COPD exacerbations. **Results:** 6,842/330,322 (2.1%) patients had an active COPD diagnosis, of which 1,108 (16.2%) had spirometry ever recorded, 4,811 (70.3%) a chest x-ray, and 2,951 (43.1%) a chest CT scan. 3,564 potential COPD exacerbations were identified amongst 1,310 diagnosed patients, of which 385 (10.8%) were labelled with an appropriate COPD exacerbation tag coded or written in clinical notes, and approximately two thirds (2,281, 64.0%) had no EMR code or text reason for prescription of respiratory-associated antibiotics and/or oral corticosteroids. Amongst patients diagnosed with COPD, 5,480 (80.1%) had no recorded current maintenance or short-acting beta-agonist (SABA) therapy in their EMR. In patients experiencing symptoms or exacerbations in the previous 12 months, 624 (51.9%) were recorded as being on no therapy, reliever only, or monotherapy. 30,228/330,322 (9.2%) patients had evidence of asthma or COPD treatment without an EMR-recorded diagnosis. **Conclusion:** There is considerable opportunity to optimise the coding/notation of COPD diagnosis, assessments, observations, exacerbations, and therapy within Australian primary care. QI programs aimed at improving EMR coding would enable clinicians to make more informed decisions regarding the care and management of people with COPD.

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| **Table 1. Identification of COPD exacerbations within Australian primary care data** |
| *Total Active Diagnosed COPD Population* | 6,842 |
| *Total Number of Potential COPD Exacerbations* | 3,564 |
| Algorithm category |  |
| 1. COPD exacerbation code
 | 385 (10.8%) |
| 1. COPD code\*
 | 375 (10.5%) |
| 1. LRTI code\*
 | 383 (10.8%) |
| 1. Other lower respiratory codes\*
 | 123 (3.5%) |
| 1. Influenza\*
 | 17 (0.5%) |
| 1. Uncoded exacerbations†
 | 2,281 (64.0%) |

**\*** Code or search term plus prescription for respiratory antibiotics and/or steroids within 3 days† Any prescription of respiratory antibiotics, and/or steroids without other reason for script**Acknowledgements:** The OPCA High-Risk asthma study group members who have contributed to this study are Sheryl Bradley, Rob Campbell, Thomaz da Silva Campos, Joseph Doan, Mark Hew, Ying Liu, Marion Magee, Ian Miles, Dominique Novic, Nicole O’Sullivan, John Pakos, Ondrej Rejda, Josephine Samuel-King, Majella Soumakiyan, Lisa Sugg, Bruce Willet**Grant Support:** This study was conducted and funded by Optimum Patient Care Australia.**Key Words:** COPD, Primary Care, Quality Improvement |