

# COUNTING THE COST OF OVER-THE-COUNTER CODEINE CONTAINING ANALGESIC MISUSE AS MEASURED BY DATA RELATED TO HOSPITAL ADMISSIONS TO A TERTIARY TEACHING HOSPITAL OVER A 5-YEAR PERIOD

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**Introduction and Aims:** Combination analgesics containing codeine (CACC) are available over-the-counter (OTC) in Australia. Numerous recent case reports detail life-threatening morbidities associated with misuse of OTC CACC, raising questions regarding the potential risks and costs of treating patients with morbidities resulting from misuse. Thus, this study aimed to 1) Identify and describe patients hospitalised, due to serious adverse effects relating to misuse of OTC CACC and; 2) Estimate the economic costs of identified OTC CACC related hospital admissions.

**Design and Methods:** Using International Classification of Diseases (10<sup>th</sup> revision, ICD-10) diagnostic codes, a search was performed to identify admissions to a tertiary teaching hospital, relating to OTC CACC misuse, over a defined 5-year period. A retrospective case note review was performed and data gathered to detail patient characteristics, presenting morbidities, resultant interventions and to calculate an approximate cost per admission.

**Results:** Ninety-nine OTC CACC related admissions (pertaining to 30 individual patients), were identified for inclusion. Most admissions related to gastrointestinal morbidities secondary to ibuprofen/codeine misuse. The mean length of stay per admission was 5.9 days, with 10.1% of admissions requiring intensive care unit stays. Patients consumed a mean of 28 OTC CACC tablets per day for a mean duration of 606 days prior to admission. The 99 admissions were estimated to cost the health care system \$1,008,082 with a mean cost per admission of \$10,183.

**Discussion and Conclusions:** The outcomes of OTC CACC misuse are serious and come at a significant cost to patient health and the Australian healthcare system.

**Implications for Practice or Policy:** Greater caution needs to be exercised when these drugs are supplied and hospital investigations of patients admitted with an index of suspicion of CACC misuse should re-evaluated to avoid superfluous investigations. These research findings can add to current deliberations on rescheduling these drugs to prescription only.

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