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CODING FRAILTY IN ADMINISTRATIVE DATASETS:AN INTERNATIONAL STUDY

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Background
Widespread population assessment of frailty is challenging. Many frailty assessment scores have poor reliability, require large amounts of data or specialised equipment. There is increasing interest in utilising routinely collected administrative data. We explored the prevalence of coded frailty syndromes within an international secondary care data set

Methods
We included patient records for those ≥75 years and required a hospital admission of ≥ 24 hours. We coded seven frailty syndromes, namely 'Dementia and Delirium', 'Mobility Problems', 'Falls and Fractures', 'Pressure Ulcers and Weight Loss', 'Incontinence', 'Dependence and Care', and 'Anxiety/Depression' within diagnostic coding groups(ICD), defining frailty as at least one frailty syndrome coded.

Results
N=1404671 patient episodes were included in the analysis, from 35 hospitals across 10 countries. (N=553595) 39.4% patient episodes had at least one frailty syndrome coded, with 'Falls and Fractures' and 'Dementia and Delirium' being most frequently coded groups (23.9% and 15.7% respectively). Using our definition, the proportion of frail patients increased by age-band (31% in 75-79 versus 49% in 84-89) and were more prevalent in females (54%; $\chi 2 = 3742.235$; df = 1; P<0.0001) compared to those without frailty syndromes. Frailty syndromes were associated with increased median length of hospital stay compared to all ≥ 75 years in the dataset, with 'Dementia and Delirium' and 'Pressure Ulcers and Weight Loss' associated with higher inpatient mortality. There was variation of frailty syndrome coding frequency by country(CV 77.6 to 166.1), and by syndrome (CV 57.8 to 138.5).

Conclusion
Frailty Syndromes are feasibly be coded in secondary care datasets.