Use of ICD-10 coding in electronic records to monitor progress towards global dementia targets

To the Editor,

One target of the World Health Organization Global Dementia Action Plan 2017-2025 is to achieve a diagnostic rate of 50% among people with dementia by 2025. In Brunei, patients presenting to primary care with possible cognitive impairment may be referred to neurology (for those aged <70 years) or geriatric medicine (for those aged ≥70 years) for assessment and management.

The Brunei Health Information Management System is a national electronic medical records system used by all government health facilities for clinical notes and prescriptions. The system can be used as a registry or database to assess trends in dementia by identifying those with ICD-10 diagnostic codes related to dementia. In Brunei, dementia diagnoses and geriatric consultations for dementia had increased from 2015 to 2019. The reliability of using ICD-10 diagnostic coding to determine the prevalence of dementia was evaluated.

A retrospective audit of electronic records was performed for geriatric medicine inpatients and outpatients admitted in June 2022 to the Raja Isteri Pengiran Anak Saleha Hospital, Brunei for the following conditions: hypertension, dyslipidaemia, diabetes mellitus (DM), ischaemic heart disease (IHD), chronic kidney disease (CKD), cerebrovascular accidents (CVA) or strokes, and dementia. The prevalences for these conditions based on the admission list and ICD-10 diagnostic coding were calculated.

60 inpatient admissions were identified; five of which were readmissions. The median age of the 55 inpatients (29 men and 26 women) was 82 (range, 70-96) years. In terms of mobility, 14 (25.5%) were independent, 15 (27.3%) required a walking stick or assistance, 3 (5.5%) used a walking frame, 14 (25.5%) used a wheelchair, and 9 (16.4%) were fully dependent. The most prevalent comorbidities were hypertension (90.1%) and dyslipidaemia (81.8%), followed by IHD (47.3%), dementia (45.5%), DM (41.8%), CKD (32.7%), and CVA (29.1%). The percentages of these conditions captured in ICD-10 diagnostic coding were high for hypertension (94%), DM (91.3%), CVA (87.5%), IHD (76.9%), and dyslipidaemia (71.1%) but was suboptimal for CKD (38.9%) and dementia (28%).

57 outpatients (19 men and 38 women) were identified; their median age was 85 (range, 68-94) years. In terms of mobility, 20 (35.1%) were independent, 21 (36.8%) required a walking stick or assistance, 2 (3.5%) used a walking frame, 12 (21.1%) used a wheelchair, and 2 (3.5%) were fully dependent. The most common comorbidities were hypertension (84.2%) and dyslipidaemia (77.2%), followed by dementia (61.4%), DM (59.6%), CKD (29.8%), IHD (31.2%), and CVA (21.1%). The percentages of these conditions captured in ICD-10 diagnostic coding was high for hypertension (93.8%), DM (91.2%), IHD (73.3%), dyslipidaemia (72.7%) but lower for CVA (66.7%), dementia (62.9%), and CKD (47.1%).

Capturing the ICD-10 diagnostic coding for dementia should be improved to enable the use of electronic records to track the trends of dementia and to monitor progress towards achieving the target diagnostic rate of dementia in Brunei.

Shyh Poh Teo
Geriatrics and Palliative Unit, Department of Internal Medicine, Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital, Brunei

Correspondence to: Dr Shyh Poh Teo, Geriatrics and Palliative Unit, Department of Internal Medicine, Raja Isteri Pengiran Anak Saleha (RIPAS) Hospital, Jalan Putera Al-Muhtadee Bilih, Bandar Seri Begawan, BA1710, Brunei Darussalam.
Email: shyhpoh.teo@moh.gov.bn
REFERENCES

