



Drug utilization pattern among elderly outpatients in the University of Port Harcourt Teaching Hospital.

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Background

Inappropriate use of drugs is a global problem affecting the health-care system.

This is of particular importance in the elderly as the prevalence of drug use increases with increasing age.

The subject of irrational prescription is of utmost importance regarding pharmacotherapy in the elderly since they use more medicines than the younger population and are at a high risk for developing adverse drug events.

Aim

The main aim of this study is to assess the drug utilization pattern among elderly medical outpatients in University of Port Harcourt Teaching Hospital using WHO core prescribing indicators.

Methods

A retrospective study was conducted for a twelve months period, January to December 2019. Prescriptions of outpatients 60 years and above were collected and documented. A total of 600 patient folders were withdrawn from the medical record unit of the outpatient clinic and prescriptions were reviewed.

Using a data collection form, patient data retrieved included but not limited to patient demography, drug name, dosage form, strength, dose, quantity and amount.

Collected data was checked for inappropriate medication use in older adults when compared with the World Health Organization standards for medicines use.

Results

Characteristics of study participants

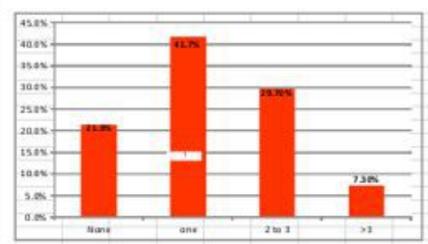
A total of 600 patient folders were reviewed, out of which 315 (52.5 %) were males and 285 (47.5 %) were females. The majority of the patients were in the age group of 60-69 years (n=404, 67.3 %), followed by 70-79 years (n=151, 25.2%) and greater than or equal to 80 years (n=45, 7.5 %).

Characteristics of Study Participants

Variables	Population (n=600)	Percentage (%)	
Gender:	Male	315	52.5
	Female	285	47.5
Age (years)	60-69	404	67.3
	70-79	151	25.2
	≥80	45	7.5
Total	600	100	

Prevalence of comorbidities among the study population.

Below shows the prevalence of comorbidities among the study population. Out of 600 patients, 41.7 % had just one co-morbidity, then 29.7 % had two to three comorbidities, and 21.3 % were with-out any comorbidity. The most commonly found comorbidity was hypertension and diabetes mellitus followed by respiratory disease, ischemic heart disease (IHD), and cardiovascular accident (CVA).



Co-morbidity Prevalence in study population (comorbidity here is referring to more than one chronic disease or condition being present in a particular patient at the same time).

More Results

Assessment of Drug use Pattern using WHO prescribing pattern

The table below shows drug use indicators (DUIs) for geriatric patients attending the outpatient clinic of the hospital.

A total number of 3313 drugs were prescribed in 600 encounters with a mean number of drugs per encounter of 5.2 (SD=2.8). Percentage of drugs prescribed in generic name was 65.3% with 19.8 % of prescription encounter with an antibiotic prescribed.

The percentage of prescription encounters with one or more injections was 25.7 %. A high proportion of drugs prescribed (85.2 %) were from the essential medicine list (EML). However, there was a low percentage, 657 (0.33 %) of antibiotic prescription encounters.

Prescribing indicators assessed	Average / percentage	WHO Standard
Average number of drugs per encounter	5.2	1.6-1.8%
Percentage of drugs prescribed by generic name	65.3%	100%
Percentage of encounter with antibiotics	19.8%	20.0-26.8%
Percentage of encounter with injection	25.7%	13.4-24.1%
Percentage of drugs from essential drug list/formulary	85.2%	100%

Conclusions

The study identified some deficiencies in prescribing indicators at the outpatient clinic of University of Port Harcourt Teaching Hospital.

The assessment showed that the current prescription pattern and drug use among elderly outpatients in the hospital is associated with poly-pharmacy and some degree of therapy duplication suggestive of inappropriate medication use.

Prescribing from the Essential Medicines List, use of injectable and antibiotics, as well as drugs prescribed in generic names did not satisfy World Health Organization recommendation.