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Global clinical, economic, social and ethical implications of inappropriate medication use and polypharmacy (IMUP). An overview

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Background & Aim: Though polypharmacy is a widely used term there is no universal consensus on its definition. Little is known about adverse health and economic consequences of this new phenomenon. The IMUP group symposia aim to provide up-to-date information regarding prescribing optimization and appropriate drug use in primary care setting.
Method. Narrative review was applied.
Results: Polypharmacy, polypragmnasia, polymedication, multiple drug use share similar notion of prescribing/using concomitantly several drugs but their number may vary. Some of the terms bear the negative connotation of potential health risks, harmful drug combinations or unnecessary, inappropriate or even futile drug usage. On the other hand, there is sufficient evidence that concomitant use of several drugs is efficient and beneficial in a number of medical conditions such as hypertension, diabetes, heart failure or osteoporosis. However, in multimorbid/frail elderly patients or those with limited life expectancy we are too often facing multiple drug regimen with little if any benefit. By 2050 there will be 75 million of older people with multimorbidity in Europe. This present significant challenge for primary care how to manage the complex phenomenon of multi-drug prescribing. Review of literature shows sufficient evidence that pharmacist's intervention, computerized decision-making and order entry support systems and individualized "deprescribing" are modestly but significantly effective in reducing number of drugs, inappropriate prescribing and adverse drug events. However, these approaches are yet not widely available to assist PCP in daily practice.
Conclusions. PCP should perform structured medication review in regular intervals in elderly patients with polypharmacy matching medical needs of an individual patient with his/her expectations and preferences and reassessing risk/benefit of prescribed drugs. Improved knowledge of geriatric pharmacology, acquaintance with the use of geriatric multidimensional tools to assess health and functional status enable PCP to improve safety and effectiveness of pharmacotherapy in complex elderly population.