

EAHP POLICY STATEMENT ON AN AGEING SOCIETY

FEBRUARY 2016

Ageing is one of the greatest social and economic challenges of the 21st century for European societies. It will affect all EU countries and most policy areas, and provide special challenges to health systems. By 2025 more than 20% of Europeans will be 65 or over, with a particularly rapid increase in numbers of over-80s¹. Furthermore, According to Eurostat, by 2060 the number of people aged 65 and over in the EU will almost double from 17% to 30% and those aged 80 and over will rise from 5% to 12%¹¹.

Because older people have different healthcare requirements, health systems will need to adapt so they can provide adequate care and remain financially sustainableⁱⁱⁱ.

The following policy statement from the national member associations of the European Association of Hospital Pharmacists outlines some key points for EU policy makers to be mindful of in shaping national and international responses to the challenges.

In summary, EAHP calls for:

- 1. Increased uptake of hospital pharmacist roles in medication reconciliation and review as a key part of the European response to increasing prevalence of polypharmacy
- **2.** Additional training for all relevant healthcare professionals in respect of the particular care needs of older patients
- **3.** Further embedding of inter-sector communication and multi-disciplinary working as critical approaches to meeting the health system challenges of an ageing society
- **4.** Regulatory innovation to improve the participation of older patients in clinical trials
- **5.** Improvement in best practice sharing and adoption across Europe to ensure the internal health system challenge of an ageing health workforce is successfully met.



1) The value of medicines reconciliation & review in the care of older patients

Extensive evidence shows that inappropriate prescribing is highly prevalent in older people and can be associated with increased morbidity, mortality and demands on healthcare resources^{iv}.

Inappropriate prescribing encompasses the use of medicines that introduce a significant risk of an adverse drug-related event where there is evidence for an equally or more effective but lower-risk alternative therapy available for treating the same condition. Inappropriate prescribing also includes the use of medicines at a higher frequency and for longer than clinically indicated, the use of multiple medicines that have recognized drug-drug interactions and drug-disease interactions, and importantly, the under-use of beneficial medicines that are clinically indicated but not prescribed for ageist or irrational reasons.

The impact of inappropriate prescribing for older patients should not be underestimated. It is associated with reduced adherence, adverse drug-drug interactions, heightened risk of medication error and adverse drug reactions (ADRs). Such ADRs can include falls, hip fractures, confusion and delirium. As well as the distress to the patient, family, carers and health professionals, such negative outcomes also create preventable hospitalisations vivii

Drug therapy optimization is a key component of healthcare provision to older patients. It is in this respect that pharmacists, as the health system's experts in medications and medication use, have a critical role to play, via interventions such as medication reconciliation and review.

Through the improved medicines management during admission, inpatient stay and discharge from hospital, inappropriate prescription can be avoided, medication adherence improved, and the patient protected from the adverse effects of medicines not being taken in the correct manner viii.

In order to support these pharmacists conducting these supportive roles, health system managers and planners must understand the value of the hospital pharmacist resource that is available to them, and facilitate greater deployment of medicines reconciliation and review by hospital pharmacists within their national health systems.

Another requirement for advancement in this area is pharmacist access to the medical record. This need was strongly endorsed at the European Summit on Hospital Pharmacy in May 2014 by the participating hospital pharmacist, patient and healthcare professional organizations when voting to support European Statement on Hospital Pharmacy 4.3^{ix}: "Hospital pharmacists should have access to the patients' health record. Their clinical interventions should be documented in the patients' health record and analysed to inform quality improvement interventions."



2) The need to train health professionals in the particular care needs of older patients

The aging process is complex, with each person ageing at different rates. A patient's actual age may not reflect their physiologic age, which can be estimated based on how well the body is functioning both physically and mentally. Age should therefore not be a basis alone for making treatment decisions but one should consider the overall health status.

Major issues concerning an aging population include the increasing prevalence of dementia as well as the emergence of the concept of frailty.

The number of people living with dementia worldwide is currently estimated at 47.5 million and is projected to increase to 75.6 million by 2030. The number of cases of dementia is estimated to more than triple by 2050^x . Particular challenges can emerge with dementia relating to medication adherence - yet good adherence is essential for attempting to slow disease progression. Health system managers can support improvement in this area by provision of support tools not only related to training, but also in the form of national (and international) approaches to improve detection of cognitive impairment, and guidelines on switching patient medication self-management to another person's responsibility if cognitive decline progresses.

Frailty is considered to be a dynamic, age-related condition characterised by a decline in homeostatic reserves in multiple physiological systems leading to decreased resistance to stressors and an increased risk of negative outcomes^{xi}. Particular care is required when medications are prescribed to such vulnerable older patients.

With such predicted challenges for European health systems approaching, it is important that preparations are put in place now, and this includes proving all relevant healthcare professionals with the necessary training in providing care to older patients.

There is work yet to do in Europe in making health systems truly age-friendly, and healthcare professionals such as hospital pharmacists are eager to make full contribution to meeting the challenge. However education and training support in providing the best care to meet the particular needs of older patients is a requirement for all members of the healthcare team.



3) Embedding inter-sector communication and multidisciplinary approaches

Older people are statistically more susceptible to hospitalisation, being more susceptible to disease, disability, multimorbidity, falls and adverse drug reactions^{xii}. This in turn leads to a higher frequency of experiencing transitions of care between primary and secondary sectors^{xiii}. This, alongside the increased prevalence of multimorbidity, as well as the involvement of health professionals within tertiary and residential care, can mean a large number of health professionals are typically involved the care pathway of an older patient. While the need for good systems of inter-sector communication and interdisciplinary teamwork within the hospital setting present themselves in relation to the care of all patients, matters are perhaps made even more stark when considering the healthcare needs of older patients.

The benefits to patient care from inter-sector communication^{xiv} and multi-disciplinary collaboration^{xv} appears well known, but the achievement of such aspirations in practice across Europe remain less than what both patients and health professionals would commonly aspire to^{xvi}.

Barriers to inter-sector communication^{xvii} and multi-disciplinary team working must be overcome. These can include: deficiencies in training and practice models, legal barriers, ICT problems in relation to information sharing; and remuneration barriers.

For the sake of ensuring the best care for Europe's ageing population, health system managers and planners should constantly monitor the opportunities, lessons, and best practice case studies that can be used to deliver measurable improvement in inter-sector communication and multi-disciplinary team working.

4) Improving the clinical trial landscape in respect of older patients

While older patients are proportionately major users of medicine, this group is underrepresented or even excluded from many clinical trials that generate the evidence-base for health care interventions. Yet it is recognised at an international level that due to potential differences in pharmacokinetics, pharmacodynamics, disease-drug interactions, drug-drug interactions, and clinical response that can occur in the geriatric population, conclusions reached in studies of adults cannot be extrapolated to the treatment of older patient populations xviii.

Despite this, in daily practice, treatment decisions for older patients are routinely based on medical data derived from studies of younger adults. In these situations, practitioners are left to treat patients over the age of 65 without adequate knowledge of older adults' response to medication, dosing ranges in acute and long-term use, side effect profiles, potential for accumulation in the body, and drug-drug interactions^{xix}.



An example provided of the difficulties this can cause for older patients relates to the treatment of patients over age 80 for thrombolysis in stroke within the EU. In this case, only one agent, recombinant tissue plasminogen activator, is approved for use. Because only 42 of the 4,000 patients on whom the drug was tested were over 80 years old, the European Medicines Agency (EMA) approved the drug only for patients 80 and under. So, older patients can only receive the medication off label, and the chances of that happening depend on the hospital and country of treatment**.

EAHP consider that older patients are often being excluded from clinical trials unnecessarily^{xxi}, and that while obvious challenges exist in respect of their participation (including higher risk of adverse events and complications from multimorbidity), these should not be considered insurmountable. Indeed, the 2007 EU Paediatric Regulation has gone some way to addressing similar problems experienced with achieving improvement in clinical study reflections on use of medicine with children and younger patients^{xxii}.

Similar policy and regulatory appears to be required at both national and European level in order to overcome current deficiencies in clinical trial processes and understanding a medicine's use in the elderly population.

5) Consideration and reflection on the ageing health workforce

The health workforce itself is ageing^{xxiii}. A demographic shift of a large section of the workforce into retirement age threatens to impact human resource in all European health professions, and response is required. Attention must be paid to keeping careers in the health workforce attractive not only in respect of professional development, remuneration and job satisfaction, but also in terms of work-life balance. Best practice responses to this challenge exist across Europe and should be highlighted and shared as part of a European approach to meeting the challenge.

In summary, EAHP calls for:

- 1. Increased uptake of hospital pharmacist roles in medication reconciliation and review as a key part of the European response to increasing prevalence of polypharmacy
- **2.** Additional training for all relevant healthcare professionals in respect of the particular care needs of older patients
- **3.** Further embedding of inter-sector communication and multi-disciplinary working as critical approaches to meeting the health system challenges of an ageing society
- 4. Regulatory innovation to improve the participation of older patients in clinical trials
- **5.** Improvement in best practice sharing and adoption across Europe to ensure the internal health system challenge of an ageing health workforce is successfully met.



ⁱ European Commission Policy on an Ageing Society." Weblog post. European Commission Policy. European Commission, n.d. Web. 24 Feb. 2016. http://ec.europa.eu/health/ageing/policy/index en.htm

ii Giannakouris, K. (2008), 'Ageing characterises the demographic perspectives of the European societies', Eurostat, 72/2008, http://ec.europa.eu/eurostat/, accessed on 24 February 2016

European Commission Policy on an Ageing Society." Weblog post. European Commission Policy. European Commission, n.d. Web. 24 Feb. 2016. http://ec.europa.eu/health/ageing/policy/index_en.htm

^{iv} Page II RL, Linnebur SA, Bryant LL, Ruscin JM. Inappropriate prescribing in the hospitalized elderly patient: Defining the problem, evaluation tools, and possible solutions. Clin Interv Aging 2010; 5: 75-87. doi: 10.2147/CIA.S9564

^v Gallagher P, Barry P, O'Mahony D. Inappropriate prescribing in the elderly. J Clin Pharm Ther 2007; 32: 113-21. doi: 10.1111/j.1365-2710.2007.00793.x

vi Shah B, Hajjar E. Polypharmacy, adverse drug reactions and geriatric syndromes. Clin Geriatr Med 2012; 28: 173-86

vii Zed P, Abu-Laban R, Balen R, et al. Incidence, severity and preventability of medication-related visits to the emergency department: a prospective study. CMAJ 2008; 178: 1563-9

viii Knight, D. A., Thompson, D., Mathie, E. and Dickinson, A. (2013), 'Seamless care? Just a list would have helped!' Older people and their carer's experiences of support with medication on discharge home from hospital. Health Expectations, 16: 277–291. doi: 10.1111/j.1369-7625.2011.00714.x

[&]quot;Hospital pharmacists should have access to the patients' health record. Their clinical interventions should be documented in the patients' health record and analysed to inform quality improvement interventions." Eur J Hosp Pharm 2014; 21: 256-258 doi:10.1136/ejhpharm-2014-000526

^{* 10} Facts on Dementia." Web log post. World Health Organisation. N.p., n.d. Web. 13 Apr. 2015. http://www.who.int/features/factfiles/dementia/en/

xi Gobbens RJ, Luijkx KG, Wijnen-Sponselee MT, Schols JM. In search of an integral conceptual definition of frailty: opinions of experts. J Am Med Dir Assoc. 2010 Jun; 11(5): 338-43.



- xii Clohesy-Pizzingrillo, Mary. "Hospitalizations and the Elderly." Clinical Advisor. Haymarket Media, 06 July 2010. Web. 13 Apr. 2015. http://www.clinicaladvisor.com/hospitalizations-and-the-elderly/article/174017/.
- xiii Allen, J, Hutchinson A, Brown R, Livingston P. Quality care outcomes following transitional care interventions for older people from hospital to home: a systematic review. BMC Health Services Research. 2014; 14: 346.
- xiv Pourrat X, Corneau H, Floch S, et al. Communication between community and hospital pharmacists: impact on medication reconciliation at admission. Int J Clin Pharm 2013; 35: 656–63
- xv Clarke, D. J. (2013), The role of multidisciplinary team care in stroke rehabilitation. Prog. Neurol. Psychiatry, 17: 5–8. doi: 10.1002/pnp.288
- xvi "Survey Shows More to Do to Achieve Inter-professional Collaboration." Press Release. European Association of Hospital Pharmacists, 11 Mar. 2013. Web. 13 Apr. 2015. http://www.eahp.eu/press-room/survey-shows-more-do-achieve-inter-professional-collaboration
- xvii Preece, D., et al., Admission into primary care: are we doing enough? European Journal of Hospital Pharmacy: Science and Practice, 2013
- xviii ICH. "Guidance for Industry: E7 Studies in Support of Special Populations: Geriatrics. Questions and Answers.," February 2012, ICH.
- xix Alvino, Simonetta, Dr. "Elderly Representation In Clinical Trials: Not A Gray Area." Elderly Representation In Clinical Trials Not A Gray Area. InVentiv Health Clinical, Apr. 2014. Web. 13 Apr. 2015. http://www.clinicalleader.com/doc/elderly-representation-in-clinical-trials-not-a-gray-area-0001.
- xx Alvino, Simonetta, Dr. "Elderly Representation In Clinical Trials: Not A Gray Area." Elderly Representation In Clinical Trials Not A Gray Area. InVentiv Health Clinical, Apr. 2014. Web. 13 Apr. 2015. http://www.clinicalleader.com/doc/elderly-representation-in-clinical-trials-not-a-gray-area-0001.
- xxi Bugeja, G. et al., BMJ, 1997, on research papers published in BMJ, Gut, Lance, and Thorax between June 1, 1996 and June 1, 1997.
- xxii Sukkar, Elizabeth. "Increasing Paediatric Medicines Research in the European Union." Pharmaceutical Journal. Royal Pharmaceutical Society, 1 Oct. 2015. Web. 13 Apr. 2015. http://www.pharmaceutical-journal.com/opinion/qa/increasing-paediatric-medicines-research-in-the-european-union/20066689.article>.



xxiii Ageing health workforce - Ageing patients. (2012). 1st ed. [ebook] Brussels: The European Hospital and Healthcare Federation (HOPE). Available at: http://www.hope.be/05eventsandpublications/docpublications/90_ageing/90_HOP E_Publication-Ageing_October_2012.pdf [Accessed 13 Apr. 2015].

Additional reference sources:

Wu TY, Jen MH, Bottle A, Molokhia M, Aylin P, Bell D, Majeed A. Ten-year trends in hospital admissions for adverse drug reactions in England 1999–2009. J. R. Soc. Med., 103 (2010), pp. 239–250.

Hartholt KA, van der Velde N, Looman CW, Panneman MJ, van Beeck EF, Patka P, van der Cammen TJ. Adverse drug reactions related hospital admissions in persons aged 60 years and over, The Netherlands, 1981-2007: less rapid increase, different drugs.

Kongkaew C¹, Hann M, Mandal J, Williams SD, Metcalfe D, Noyce PR, Ashcroft DM. Risk factors for hospital admissions associated with adverse drug events. Pharmacotherapy. 2013; 33(8):827-37.

Conforti A, Costantini D, Zanetti F, Moretti U, Grezzana M, Leone R. Adverse drug reactions in older patients: an Italian observational prospective hospital study. Drug Healthc Patient Saf, 4 (2012), pp. 75–80.

Brvar M, Fokter N, Bunc M, Mozina M. The frequency of adverse drug reaction related admissions according to method of detection, admission urgency and medical department specialty. BMC Clin. Pharmacol., 9 (2009), p. 8

Ahern F, Sahm LJ, Lynch D, McCarthy S. Determining the frequency and preventability of adverse drug reaction-related admissions to an Irish University Hospital: a cross-sectional study. Emerg Med J. 2014 Jan;31(1):24-9.

Hamilton H, Gallagher P, Ryan C, et al. Potentially inappropriate medications defined by STOPP criteria and the risk of adverse drug events in older hospitalized patients. Arch Intern Med 2011;171:1013–1019.

Davies EC, Green CF, Mottram DR, Rowe PH, Pirmohamed M. Emergency readmissions to hospital due to adverse drug reactions within 1 year of the index admission. Br. J. Clin. Pharmacol., 70 (5) (2010), pp. 749–755.