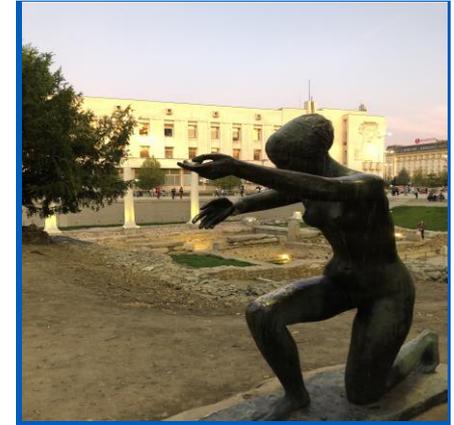
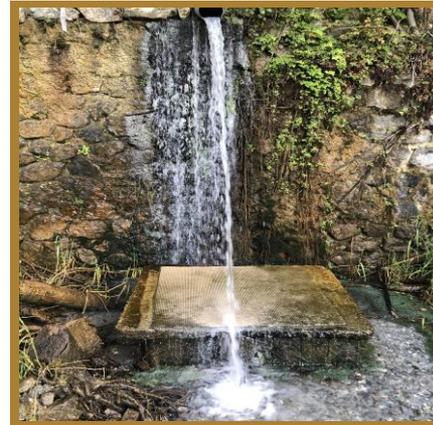


64 CONGRESSO NAZIONALE SIGG



Continuità di affetti, continuità di cure



Il ruolo dell'Infermiere nella terapia farmacologica in RSA anziani

Alba Malara



+ Challenges in Long-Term Care in Europe

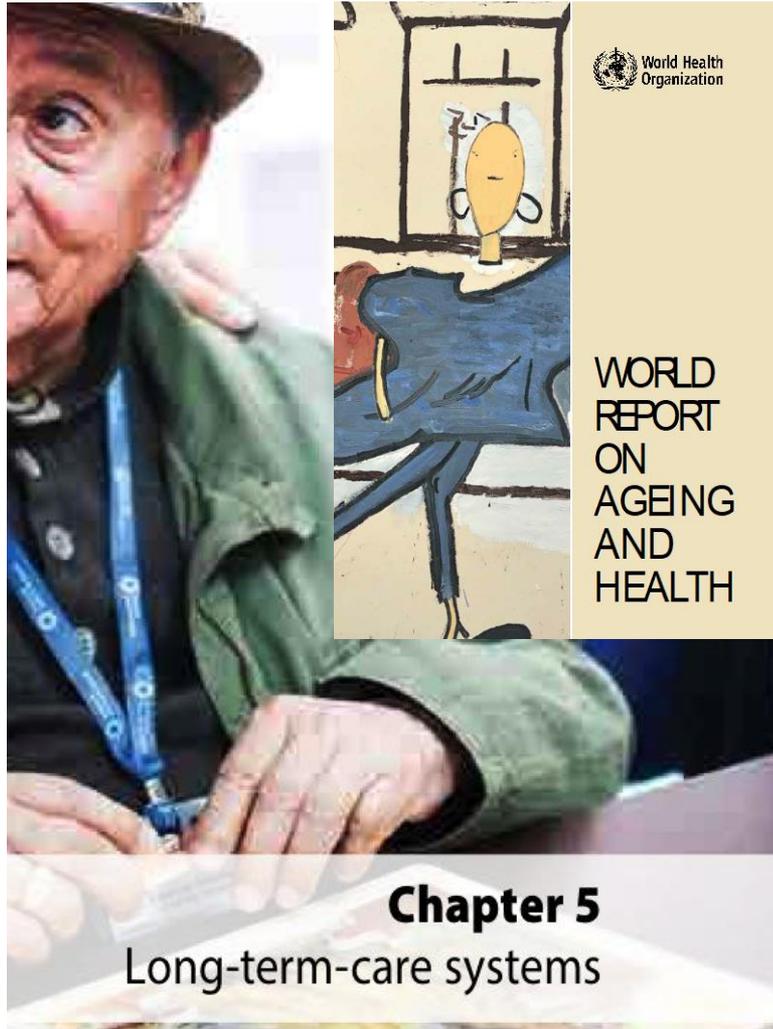
Nursing Homes are defined by WHO as “*High dependency care facilities primarily engaged in providing inpatient nursing and rehabilitative services to individuals requiring nursing care*”.

(WHO, 2004)

- ✓ Accessibility and Adequacy
- ✓ Interinstitutional and territorial fragmentation
- ✓ Towards the prioritisation of Home-based care
- ✓ Financial Sustainability
- ✓ **QUALITY!!!**



+ General principles of an integrated system of long-term care



Older-person-centered System of Long Term Care

- ✓ Long-term care must uphold the human rights of care-dependent older people. Care must be provided in a manner that enhances older people's dignity, and enables their self-expression and, where possible, their ability to make choices.
- ✓ Long-term care should be person-centred. It should be oriented around the needs of the older person rather than the structure of the service.



Prevention of Functional Decline by Reframing the Role of Nursing Homes?

The Paradox of Nursing Home Funding

In summary therefore, on one hand carers are encouraged to improve care quality and to reduce the risk of functional decline, but on the other hand, financial incentives are such that resources are greater when functional status is worse. Based on these observations, Task Force members recommend reframing NH care with the purpose of addressing the lack of rigor in rehabilitation, which currently is in failure to sustain or slow the loss of function. Policies of reframing of the focus in NHs need to be in alignment with a practicable level of care.

Changing the Culture in the NH

Nursing home residents are at high risk for malnutrition,²⁸ weight loss,²⁹ pressure ulcers,³⁰ polypharmacy, and inappropriate drug prescribing.³¹ The NHs themselves may be a risk factor for the residents. In fact, previous studies showed that in addition to the residents' characteristics, NH characteristics were associated with potentially inappropriate drug prescribing,³⁴ particularly with sedative drugs.³⁵ Potentially avoidable hospitalizations are another high risk for NH residents. Hospitalizations are often associated with added disabilities due to iatrogenic events.³⁶⁻³⁸

Prevention of Functional Decline

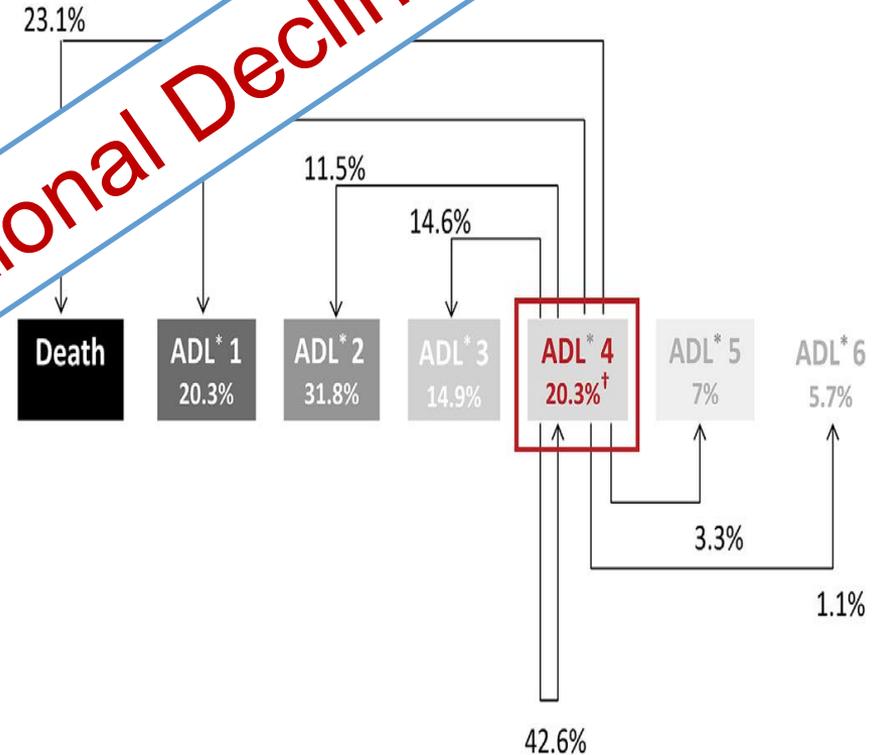


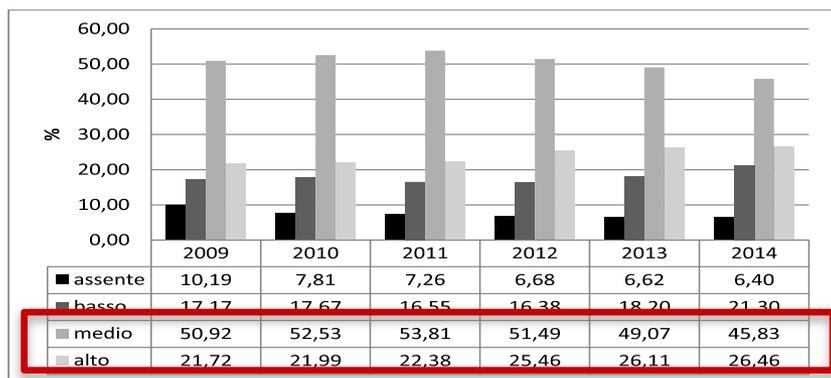
Fig. 1. Functional decline at 18 months in NH residents according to the baseline ADL* score. Personal data IQARE (175 EHPAD; 6275 residents). *A total score of 6 indicates full function, and 0 indicates severe disability. †The percentages under the ADL score correspond to the distribution of residents at baseline.

Tabella 6.5 - Anziani ospiti nei presidi residenziali socio-assistenziali e socio-sanitari al 31 dicembre, per classe d'età. Anni 2009-2014. (Valori percentuali)

Classi di età	2009	2010	2011	2012	2013	2014
65-74 anni	13,5	13,3	12,9	12,8	12,5	12,3
75-79 anni	14,5	14,1	13,5	13,4	13,5	13,5
80-84 anni	23,8	22,9	22,5	22,5	22,4	22,0
85 anni e più	48,2	49,8	51,0	51,3	51,6	52,2
Totale (65 anni e più)	100,0	100,0	100,0	100,0	100,0	100,0

Fonte: elaborazione su dati ISTAT, Indagine sui Presidi residenziali socio-assistenziali e socio-sanitari.

Figura 6.1 - Posti letto per anziani nei presidi residenziali socio-assistenziali e socio-sanitari secondo l'intensità sanitaria. Anni 2009-2014. (Valori percentuali)



Nota: il calcolo è stato effettuato al netto dei posti non indicati.

Fonte: elaborazione su dati ISTAT, Indagine sui Presidi residenziali socio-assistenziali e socio-sanitari.

Tabella 2.5 - Dotazione di posti letto per anziani (autosufficienti e non autosufficienti) nei presidi residenziali socio-assistenziali e socio-sanitari – Anni 2010-2012-2014 (% su popolazione 65+)

Regioni	2010	2012	2014
Piemonte	3,9	3,9	4,1
Valle d'Aosta	6,6	3,8	3,7
Lombardia	3,0	2,9	2,9
Liguria	3,6	3,0	2,7
Trentino Alto Adige	4,6	4,4	4,4
P.A. Bolzano	4,3	4,4	4,4
P.A. Trento	4,8	4,4	4,4
Veneto	3,6	3,1	3,2
Friuli Venezia Giulia	3,8	3,5	3,2
Emilia-Romagna	3,2	3,3	3,0
Toscana	2,0	1,7	2,0
Umbria	1,3	1,2	1,3
Marche	2,3	2,1	2,2
Lazio	1,3	1,2	1,3
Abruzzo	1,7	1,5	1,3
Molise	2,3	1,8	2,0
Campania	0,9	0,6	0,7
Puglia	1,1	0,9	1,2
Basilicata	1,1	1,3	1,5
Calabria	1,0	0,8	1,0
Sicilia	1,5	1,1	1,4
Sardegna	1,4	1,3	1,7
ITALIA	2,5	2,2	2,2

Fonte: ns. elaborazioni su dati ISTAT (2017b, 2017c).

Multimorbidity and Polypharmacy

Editorial

Making more of multimorbidity: an emerging priority

Multimorbidity would seem a relatively straightforward term, denoting multiple medical conditions within a single patient. Yet an Academy of Medical Sciences report, *Multimorbidity: a priority for global health research*, published in April, 2018, suggests that competing definitions in the medical literature have impeded research and improvements in patient care. The report recommends that a path forward must include a standardised definition that can be incorporated into research agendas to identify the evidence gaps and to inform the organisation of health-care systems globally.

Multimorbidity, as emphasised by the authors, is distinct from comorbidity because there is no primary or index condition. Frailty is a related construct in ageing populations, but is different since patients with multimorbidity might not necessarily be frail. Researchers and clinicians should use a definition that is consistent with that adopted by WHO: the coexistence of two or more chronic conditions, where each must be a non-communicable disease (NCD), a mental health disorder, or an infectious disease of long duration.

Varying definitions have led to wide discrepancies in prevalence estimates (ranging from 13–72% in the general population), but some patterns of multimorbidity have been uncovered. Multimorbidity is more prevalent in older adults (60 years and over) and is the norm in this age group in high-income countries. It is also more prevalent in women, possibly because of greater exposure to the adverse effects of poverty. Multimorbidity is increasing globally, likely driven by the ageing population but also by factors such as high body-mass index, urbanisation, and the growing burden of NCDs (such as type 2 diabetes) and tuberculosis in low- and middle-income countries (LMICs). Predictably, certain morbidities cluster together, such as coronary heart disease and cerebrovascular disease. These conditions are called concordant multimorbidities since they can share a common aetiology. Depression, cardiometabolic disorders, and musculoskeletal disorders are most commonly present within multimorbidity clusters. Notably, multimorbidity clusters comprising concurrent physical and mental health conditions are associated with poorer clinical outcomes, lower quality of life, and increased risk of premature mortality.

Most of the evidence on multimorbidity has come from cross-sectional studies sampling specific populations in various settings. The report largely focuses on where the research agenda must be extended, including refining descriptive epidemiology, especially for LMICs and younger patients, and underscoring the need for longitudinal cohort data to understand clustering of conditions across the lifespan. But it also highlights the challenges for patients and clinicians. The majority of health-care systems are organised to treat single conditions. For patients with multimorbidity, that can mean interfacing with multiple health-care providers, increased risk of inappropriate polypharmacy from lack of provider communication, and potentially suboptimal care.

To update health-care systems in the face of the increasing burden of multimorbidity will require a shift for physicians from specialists to generalists, likely through changing payment models to incentivise improved patient outcomes. Solutions from LMC systems already focusing on diagnosis-related group-based schemes for hospitals could spur finance innovation. Another shift will be greater patient technology to support self-management of conditions. Integrating care in creative ways, such as treatment centres for multimorbidity clusters (for example, hypertension management within HIV clinics), could provide other scalable options.

Although not yet well characterised, multimorbidity is extremely costly to individuals and health-care systems. While actively engaging in efforts to adapt to increasing demand, identifying the determinants of the acceleration of multimorbidity is crucial. Appreciating that multimorbidity clusters are linked with the increase in NCDs is essential as well. The report backs up the findings and recommendations in *The Lancet's* Taskforce on NCDs and Economics, also published this month, highlighting greater investment in prevention and control of NCDs to disrupt the cycle of chronic illness and economic impoverishment.

The multimorbidity perspective adds a timely dimension, suggesting an important window of opportunity to curtail this complex and expanding challenge. Aggressively targeting NCDs as preventable and with identifiable (and treatable) risk factors, whether single conditions or in clusters, could be the first line of offence in addressing the next major health priority—multimorbidity. ■ *The Lancet*



Photo: Shutterstock

For *Multimorbidity: a priority for global health research* see <https://www.thelancet.com/policy/projects/multimorbidity>
For *The Lancet's* Taskforce on NCDs and Economics see <http://www.thelancet.com/series/taskforce-ncds-and-economics>



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Editorial

Polypharmacy in Nursing Home Residents: What Is the Way Forward?

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Polypharmacy is the use of multiple drugs by a patient, although there is not a universally accepted definition. According to several authors, the use of greater than or equal to 5 drugs corresponds to polypharmacy, whereas others consider polypharmacy to be the use of as few as 3 or more drugs, up to 10 or more drugs.¹ From another perspective, polypharmacy is defined as the use of unnecessary drugs by a patient.² Independent of the specific definition, polypharmacy is a hot topic in medicine today, particularly in older patients. Epidemiologic data demonstrate that polypharmacy is widespread in the older population,^{3–5} with increasing prevalence in the last decade.⁶ Polypharmacy is caused by essentially 2 factors: (1) the increasing availability of drugs to treat or prevent specific diseases (eg, hypertension, diabetes, heart failure, chronic obstructive pulmonary disease) implies that recommended therapies often require multiple drugs; and (2) the frequent occurrence of multiple diseases in the same person (multimorbidity).

Nursing home (NH) residents are no exception. They are usually characterized by very old age, multimorbidity, a high prevalence of cognitive impairment, and severe disability.^{7,8} Studies performed in NHs showed that up to 50% of residents use 9 or more drugs.^{9,10} Older NH residents take more drugs than community-dwelling older adults,¹¹ although a considerable variation in the rate of polypharmacy has been observed between different NHs,¹² with an increase in prescription drug consumption over time.¹³ In a comprehensive systematic review, Jokanovitch et al¹⁴ searched primary studies that investigated polypharmacy and its correlates in long-term care facilities. They identified 44 studies that satisfied the inclusion criteria. The prevalence of polypharmacy was high, although with significant heterogeneity across studies and facilities. Several factors were associated with polypharmacy, including recent hospital discharge, number of prescribers, and chronic diseases. In contrast, older age, activities of daily living disability, cognitive impairment, and longer length of stay were inversely associated with polypharmacy.

While using multiple drugs in older patients has been considered negative, more recently, the availability of effective new drugs, that can be used in this patient population, has partially modified this view, leading to the appreciation that under treatment is even more common and problematic than overtreatment in old age.¹⁵ Therefore,

polypharmacy has been named the new standard of care for older patients.¹⁶ Nevertheless, the epidemic of polypharmacy in nursing homes raises concerns for several reasons.^{17,18} First, the majority of drugs have never been properly tested in these very old, disabled, cognitively impaired older patients.¹⁷ These patients have been, and often still are, systematically excluded from clinical trials, and in particular, from randomized controlled trials.^{19,20} Residence in a NH is probably one of the most common exclusion criteria in research protocols.

Indeed, the need to perform clinical and epidemiologic research in NHs has been recognized for some time,²¹ and it has also been advocated, more recently, by a group of international experts.^{22–24} The management of drugs is certainly one of the most important areas for research and quality improvement in NHs.^{24–26} NH residents are an extremely vulnerable population with an increased sensitivity to the negative effects of drugs because of the combination of advanced aging, multimorbidity, and disability. For instance, it has been previously shown that drugs with anticholinergic effects are associated with several negative outcomes in this setting, including falls, delirium, and functional decline in basic activities of daily living.²⁷

Furthermore, many older patients in NHs have reached the terminal phase of their lives.²⁸ This is a period when the entire therapy should be carefully reviewed to verify the original indication for treatment and whether the clinical benefits of a drug, which often become negligible or questionable in this phase of a patient's life (eg, in the case of medications used to prevent or to prolong life), still justify their use, considering that iatrogenic risk remains unchanged or even increases.²⁹

In this clinical scenario, the discontinuation of selected treatments targeting long-term outcomes, and the initiation of treatments aimed at increasing comfort, are usually appropriate.³⁰ Conversely, the analysis of daily medication use among NH residents with advanced dementia, during their final year of life, revealed the existence of several questionable prescribing practices. For example, the use of lipid-lowering agents and proton-pump inhibitors occurred at very similar frequencies at 12 months (20.9% and 9.0%, respectively) and 1 week before dying (18.3% and 7.9%, respectively), whereas the use of opioids to control pain remained persistently low until the final week of life, when a dramatic increase in prescriptions was observed.³¹

Factors related to the process of care might increase the risk associated with multiple drug use. Inappropriate prescribing is

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<http://dx.doi.org/10.1016/j.jamda.2015.07.008>

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Complexity of Care in LTC

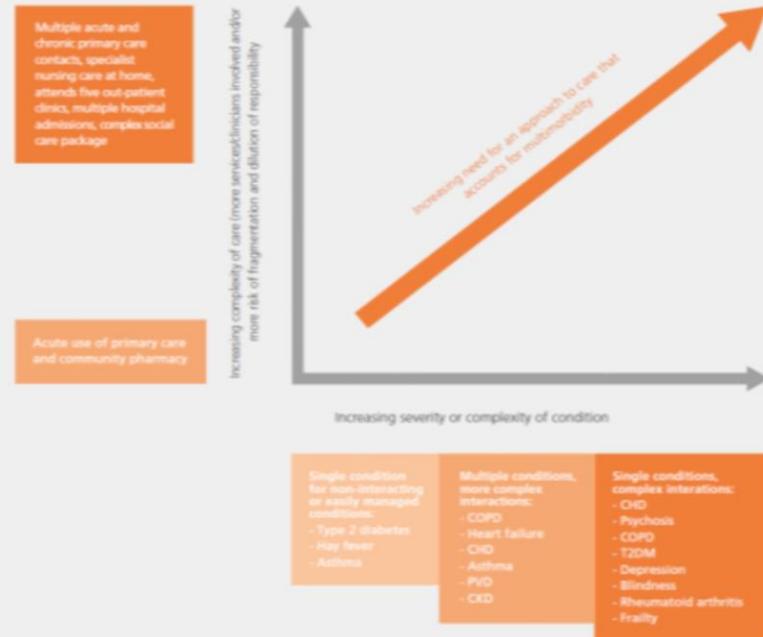


Multimorbidity: a priority for global health research

April 2018

The Academy of Medical Sciences

Figure 5. Relationship of complexity of care and complexity of conditions

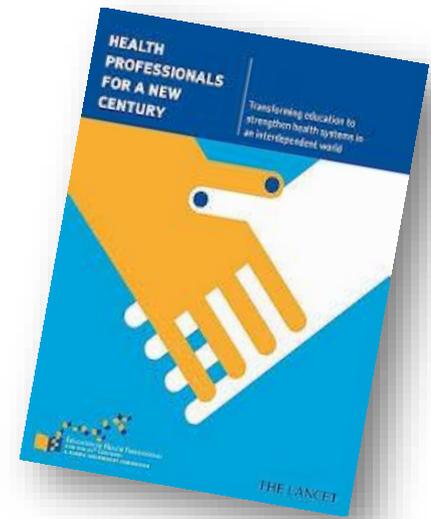


Source: NICE (2016).⁴⁰⁶

Patients with multimorbidity may not always need an approach to care that goes beyond the optimal management of their individual conditions in isolation. Yet as the severity or complexity of their conditions and their interactions increases, the need for a management strategy that specifically considers multimorbidity becomes more apparent. This may especially be the case where the clusters of conditions are discordant in their management strategies, and where a patient presents with both mental health and physical conditions. Uncoordinated and fragmented care from healthcare systems centred on single conditions may be suboptimal for such patients.⁴⁰⁶

Who is the nurse?

Reflections on tasks, responsibilities and educational level



Healthcare personnel – nursing professionals

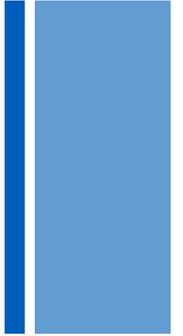
Practising nursing professionals ([International Standard Classification of Occupations \(ISCO 08\)](#) code 2221) assume responsibility for the planning and management of patient care, including the supervision of other healthcare workers, working autonomously or in teams with medical doctors and others in the application of preventive and curative care. Although nurses have traditionally provided care to patients under the guidance of a [physician](#), they are increasingly permitted in many EU Member States to practise independently as professionals. This however depends to some degree on their qualifications and level of training, with an increasing proportion of nurses following university courses to degree level.

*Eurostat; Data extracted in July 2018.
Planned article update: November 2019.*



Nurse and Multidisciplinary

Reflections on tasks, responsibilities and linked degree



DM 739/1994 (Profilo Professionale dell'Infermiere)

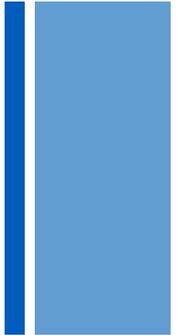
Art.3: L'infermiere agisce sia individualmente sia in collaborazione con gli altri operatori sanitari e sociali;

Codice Deontologico dell'Infermiere

- ✓ L'infermiere riconosce che l'interazione fra professionisti e **l'integrazione interprofessionale** sono modalità fondamentali per far fronte ai bisogni dell'assistito.
- ✓ L'infermiere garantisce la **continuità assistenziale** anche contribuendo alla realizzazione di una rete di rapporti interprofessionali e di una efficace gestione degli strumenti informativi.



Nurses' Tasks and Responsibilities: what is already known...



Nurses' involvement in pharmacotherapy is essential to Medication Safety

- ✓ The **Provision, Preparation and Administration** of medication are at the core of nursing practice.

what we have to add...

- ✓ Monitoring the **Therapeutic Effects** and **Adverse Drug Reactions**,
- ✓ **Patient Adherence** to treatment
- ✓ **Education Patient**
- ✓ **Interprofessional Communication**

...their involvement varies depending on educational level the setting **Nursing Homes, Community Care or Hospitals.**



Erasmus+



EUPRON - A quantitative description of nurses' practices in interprofessional pharmaceutical care in Europe

De Baetselier E, Van Rompaey B, Batalha LM, Bergqvist M, Czarkowska-Pączek B, De Santis A, Dijkstra NE, Fernandes MI, Filov I, Grondahl VA, Heckzova J, Helgesen AK, Isfort M, Jordan S, Karnjuš I, Keeley S, Kolovos P, Langer, Lillo-Crespo M, Logan V, **Malara A**, Meyer G, Olah A, Padysakova H, Prosen M, Pusztai D, Sino CG, Tziaferi S, Ziakova E, Dilles T

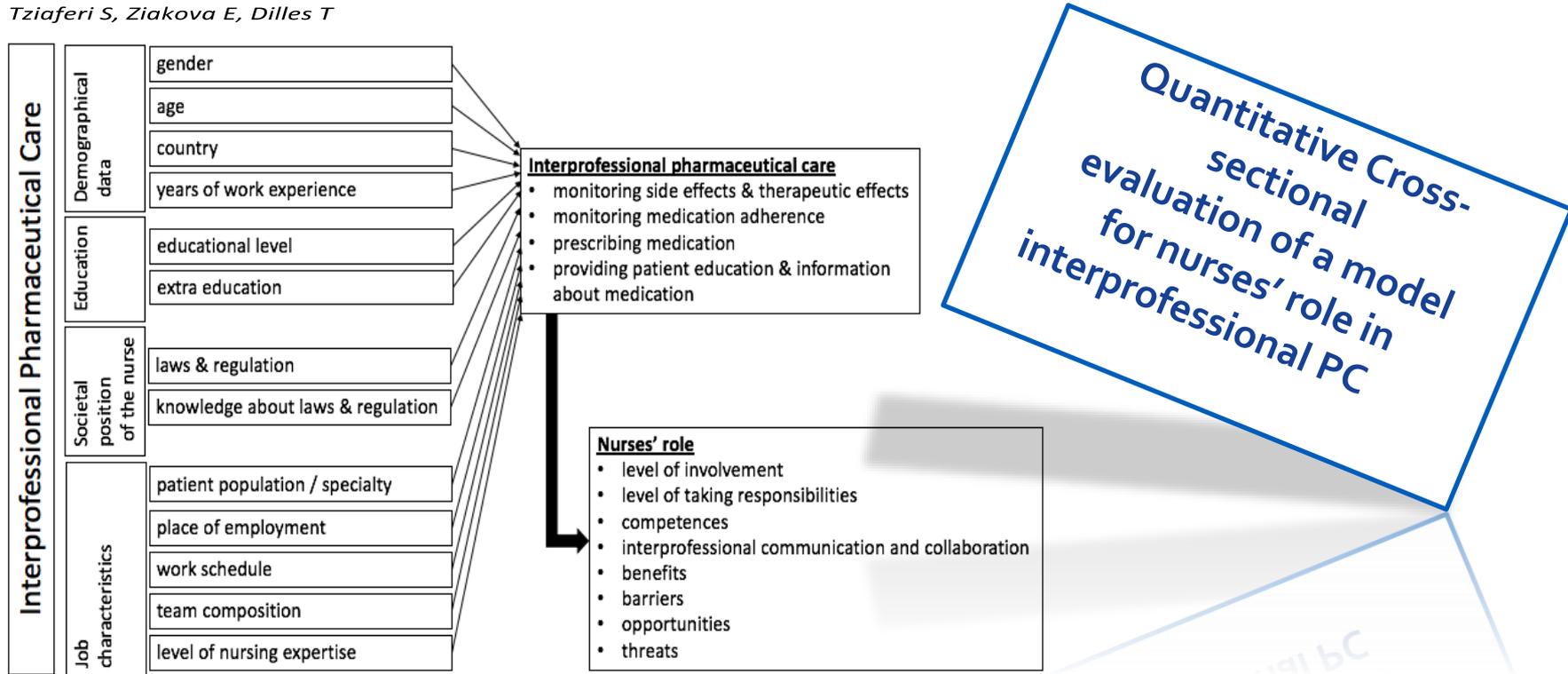
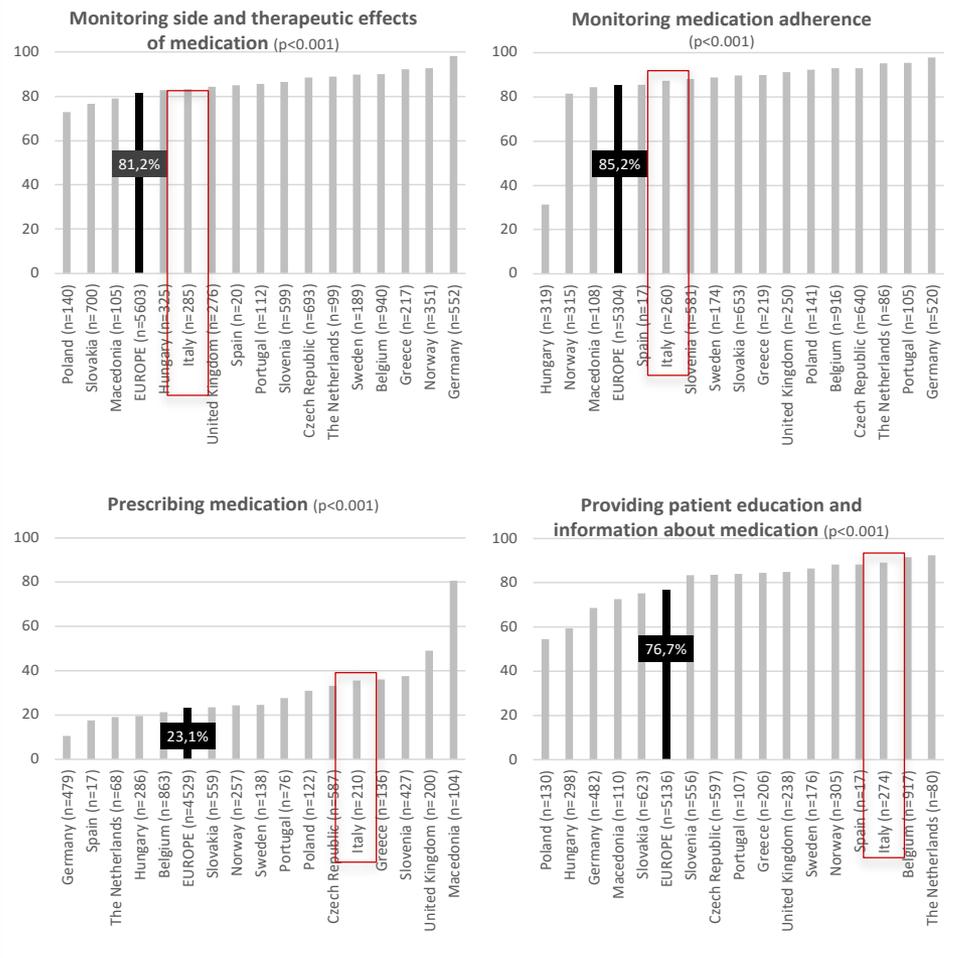


Figure 1: Conceptual framework for the development of the questionnaire to investigate nurses' practices in interprofessional pharmaceutical care in Europe

(Under review on Journal of Interprofessional Care)

+ Nurses' roles in Interprofessional Pharmaceutical Care

Figure A. Percentages of participants (nurses, doctors and pharmacists), stating that four different aspects of pharmaceutical care are part of nurses' role in their daily clinical practice, per country and for Europe as a whole.



- ✓ Monitoring side effects and therapeutic effects of medication (MST)
- ✓ Monitoring medication adherence (MMA)
- ✓ Providing patient education and information about medication (PEI)
- ✓ Prescribing medication (PM)

(Under review on Journal of Interprofessional Care)

Barriers for Nurses to Safe Medication Management in Nursing Homes

Tinne Dilles, BN, RN, MScN¹, Monique M. Elseviers, MS, PhD², Bart Van Rompaey, BN, MS, PhD³, Lucas M. Van Bortel, MD, PhD⁴, & Robert R. Vander Stichele, MD, PhD⁵

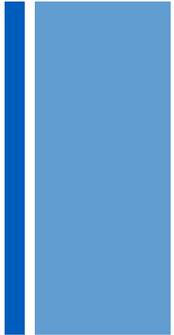
Barriers in Medication Safety





Barriers for Nurses to Safe Medication Management in Nursing Homes

Tinne Dilles, BN, RN, MScN¹, Monique M. Elseviers, MS, PhD², Bart Van Rompaey, BN, MS, PhD³, Lucas M. Van Bortel, MD, PhD⁴, & Robert R. Vander Stichele, MD, PhD⁵



Medication monitoring

	Total N = 408 % ≥ 7	Nurses n = 236 % ≥ 7	Nurse assistants n = 172 % ≥ 7	p value of difference
Not enough information of the physicians	40.5	42.4	37.9	.363
Not enough interdisciplinary communication on evaluating side-effects	28.4	37.4	15.3	<.001
Not enough attention to reporting observations	28.2	34.2	20.0	.002
Not knowing enough on side-effects	35.5	33.5	38.4	.307
Not enough interdisciplinary communication on evaluating therapeutic effects	26.6	32.2	18.4	.002
Lack of time to perform the task with care	29.7	30.5	28.5	.662
Difficulties in communicating with physicians	23.5	22.7	24.6	.675
Limited accessibility of physicians	17.9	19.6	15.6	.302
Not feeling responsible for the evaluation of the effects	16.0	18.4	12.9	.136
Not knowing enough on therapeutic effects	24.9	16.9	36.1	≤.001
Limited accessibility of pharmacists	10.0	8.5	12.0	.244

Tablets Breaking, Crushing or Splitting



Best Practices for Tablet Splitting

At some point your healthcare or managed care company may have recommended tablet splitting for reasons such as to adjust the dosing of your medication or to reduce costs. In such cases, it is your healthcare professional's responsibility to monitor the impact of risks associated with the practice of tablet splitting. You should always talk to your healthcare professional before splitting a tablet and not be afraid to ask him or her questions if you are considering splitting tablets.

When considering whether to split a tablet, you and your healthcare professional should bear in mind the following:



Ministero della Salute

DIREZIONE GENERALE DELLA PROGRAMMAZIONE SANITARIA
UFFICIO 3

RACCOMANDAZIONE

**PER LA MANIPOLAZIONE DELLE FORME FARMACEUTICHE
ORALI SOLIDE**

La manipolazione delle forme farmaceutiche orali solide, qualora si renda necessaria, causa errori in terapia se non correttamente gestita

Ai fini della presente Raccomandazione, per *manipolazione* si intende:

- la divisione di compresse;
- la triturazione/frantumazione/polverizzazione di compresse;
- l'apertura di capsule.

Nurse-led medicines' monitoring in care homes, implementing the Adverse Drug Reaction (ADRe) Profile improvement initiative for mental health medicines: An observational and interview study

Sue Jordan^{1*}, Timothy Banner^{1,2}, Marie Gabe-Walters³, Jane M. Mikhail¹, Gerwyn Panes¹, Jeff Round⁴, Sherrill Snelgrove¹, Mel Storey^{1,5}, David Hughes¹, on behalf of the Medicines' Management Group, Swansea University[¶]

“Patient-centred medication review is essential”.

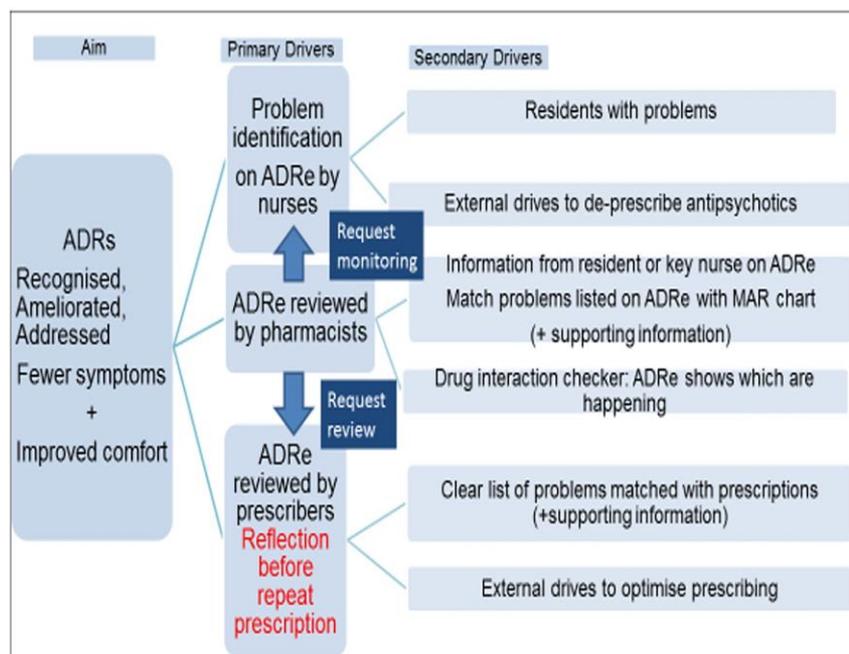


Fig 3. Integrating ADRe into multidisciplinary teams.

Nurse-led medicine' monitoring brings several benefits: it relieves residents' ADR burden of confusion, sedation and EPS; alleviates falls, pain, and dyspnoea; optimises seizure control; and bridges communication between residents, nurses and prescribers..

Nurses' practices in pharmacotherapy and their association with educational level

Tinne Dilles, Robert Vander Stichele, Bart Van Rompaey, Lucas Van Bortel & Monique Elseviers



Table 3 Nurses' practice patterns in pharmacotherapeutic care in three settings

	Nursing homes, <i>n</i> = 260	Community care, <i>n</i> = 82	Hospitals	<i>P</i> -value
Nurses providing information about a drug % (<i>n</i>)	59.3 (153)			0.001
If yes: sources used to provide information to the patients and their families				
Trusted in own knowledge (%)				0.001
Used patient package insert (%)				0.001
Consulted a head nurse (%)				0.01
Consulted a physician (%)				0.01
... (not questioned in community care)			0.6	‡
... (not questioned in nursing homes)		81.8	81.4	< 0.001
... (not questioned in hospitals)		75.8	49.4	< 0.001
... (not questioned in community care)	66.8	*	44.9	< 0.001
... (not questioned in nursing homes)	50.2	53.0	51.6	0.909
Number of adverse drug reactions % (<i>n</i>)	48.8 (126)	40.2 (33)	41.6 (443)	0.098
If yes: interventions following the recognition of an adverse drug reaction (multiple answers possible)				
No intervention undertaken (%)	1.6	6.1	1.1	‡
Advised to stop taking the drugs (%)	9.5	18.2	15.3	0.207
Reported to a head nurse (%) [†]	59.5	*	39.7	< 0.001
Reported to a physician (%)	92.1	81.8	89.7	0.225

The complexity of pharmacotherapy in nursing homes demands higher-educated nurses to ensure patient safety!!!

P-values are based on Pearson Chi-square-tests.

*Not questioned in community care.

†Not questioned in nursing homes.

‡Results represent ≤5 nurses in one or more healthcare settings.

+ Methodological Considerations

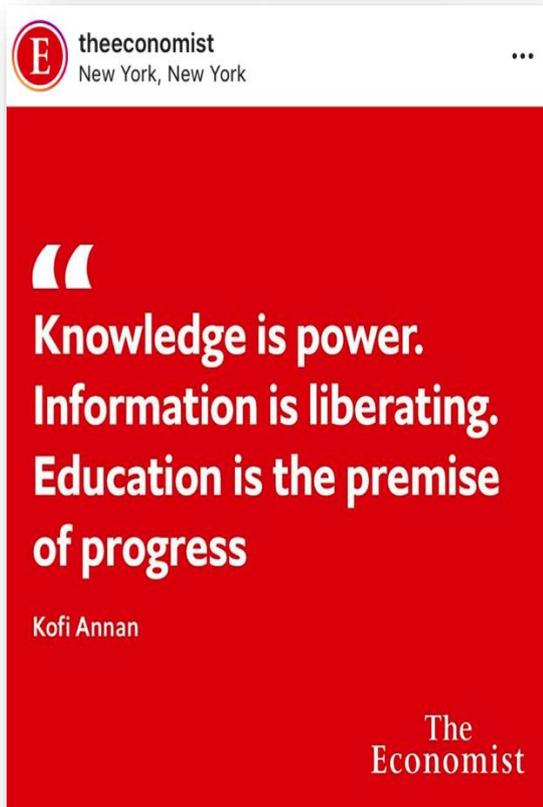
- ✓ Greater **awareness** of their role in pharmacotherapeutic care is needed among nurses, other members of the interdisciplinary care team, patients and their families. This is essential to improving the quality of pharmacotherapeutic nursing care and enhancing interdisciplinary cooperation.
- ✓ **Educational programmes** should prepare nurses for their pharmacotherapeutic role, particularly in nursing homes, where polypharmacy is prevalent and involvement in pharmacotherapeutic care is high, despite low average educational levels.

+ Methodological Considerations

Complexity science

Complexity, leadership, and management in healthcare organisations

Paul E Plsek, Tim Wilson



- ✓ **Understanding the Attraction for Change**
- ✓ **Fighting Opposition/hostility**
- ✓ **Natural Creativity**

WORK IN PROGRESS....



DeMoPhac Project-Nurses' Role in Interprofessional PC



THANK YOU
FOR
YOUR ATTENTION

Alba Malara
Andrea De Diase
Marika Lo Monaco
Tiziana Avenoso
Francesco Talarico

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