Challenges in the care for multi-morbid older people

8 December 2017

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Challenges of an ageing population

- Older adults are increasingly faced with disability, multimorbidity and chronic illness (e.g. dementia)  
  \( \text{(Rechel et al., 2013)} \)

  - Acute care needs \( \rightarrow \) chronic care needs (health & social)
  - Increase of individuals depending on long-term care services
Challenges of an ageing population

At which level(s) do we need to target with interventions??

(adapted from Bronfenbrenner, 1977 & 1980)
Challenges in the care for multi-morbid older people

1. Integrated care for older adults: The evidence base
2. Is there a role for nurses in integrated care models?
3. Implementation research: the missing link!
4. INSPIRE: Developing and implementing a community care model for elderly care
Neue Versorgungsmodelle
für die medizinische Grundversorgung

Bericht der Arbeitsgruppe
„Neue Versorgungsmodelle für die medizinische Grundversorgung“
von GDK und BAG

Bern, April 2012
Integrated care for older adults

Care across providers and settings is often neither centralized nor coordinated

**RISK FOR FRAGMENTED CARE**

- duplication of services
- gaps in information delivery
- inappropriate or conflicting care recommendations
- medication errors
- senior citizen and caregiver confusion and distress,
- higher care costs due to unnecessary hospitalizations and other unnecessary use of services

**IMPLEMENTATION** OF INTEGRATED CARE MODELS

*(Parry C, Mahoney E, Chalmers SA, Coleman EA. Assessing the quality of transitional care further applications of the care transitions measure. Med Care, 2008;46:317-322)*
Overview integrated care models

Integrated care = approach to strengthen a people-centered health system through the promotion of comprehensive delivery of quality services. These services are designed according to the multidimensional needs of the population and the individual and are delivered by a coordinated multidisciplinary team of providers.

1) Individual models
   - Case management
   - Individual care plans
   - PCMH (Patient-Centered Medical Home)

2) Group- and disease-specific models
   - Chronic Care Model
   - Integrated care models for elderly and frail

3) Population-based models
   - Kaiser Permanente *
   - Veterans Health Administration

(Interprofessional care teams: Involvement of (Advanced Practice) nurses)

(WHO Regional Office for Europe. Strengthening people-centred health systems in the WHO European Region: framework for action on integrated health services delivery. 2016)
Need for integrated care models

Kaiser Permanente (KP) model of integrated care

Population-based model based on:
1) **stratification of the population** and
2) supply of **health** and **social** services according to the individual’s needs.

*(WHO Regional Office for Europe. Strengthening people-centred health systems in the WHO European Region: framework for action on integrated health services delivery, 2016)*
1. Healthy ageing and frailty prevention

- provide information about ageing and ageing-related matters
- e.g. Public health programs to increase physical activity, improve nutrition, vaccine campaigns, etc.

2. Social services

- Social assessment
  - Instrumental activities of daily living (house keeping, shopping, finances, transport)
- Loneliness prevention
- Caregiver burden

3. Health care services

- Functional assessment
- Cognitive assessment
- Medical assessment
- Activities of daily living (bathing, dressing, toileting, transfers), nursing care (e.g. wound care) and medical care (e.g. diabetes, polypharmacy)
Integrated care models of care for the elderly  
Cochrane review

OBJECTIVES: To determine the effectiveness of health-service or patient-oriented interventions designed to improve outcomes in people with multimorbidity (≥2 chronic conditions) in primary care and community settings.

- Clinical outcomes = (moderate certainty evidence)
- Mental health ++ (high certainty evidence)
- Patient reported outcomes + (moderate certainty evidence)
- Health services use = (low certainty evidence)
- Medication adherence + (low certainty evidence)
- Patient related behaviors + (moderate certainty evidence)
- Provide behavior (prescribing behavior & quality of care) + (moderate certainty evidence)
- Cost data: limited

CONCLUSIONS:
- Emerging evidence to support policy for the management of people with multimorbidity and common comorbidities in primary care and community settings.
- Remaining uncertainties about the effectiveness of interventions for people with multimorbidity in general due to the relatively small number of RCTs conducted in this area to date, with mixed findings overall.

(Smith et al. Cochrane Database Syst Rev 2016, 14:3)
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4. **INSPIRE** Developing and implementing a community care model for elderly care
Innovationen in der ambulanten Grundversorgung durch vermehrten Einbezug nichtärztlicher Berufsleute

Literaturanhang:
Abstracts der verwendeten Artikel

Kilian Künzi & Patrick Detzel

Oktober 2007
Nurse Regularly Involved in Care

Percent reported a nurse or other non-physician clinician is regularly involved in care*

Base: Has regular doctor/place of care.
* For example, discusses test results, treatment plans or advises you on your health.

2010 Commonwealth Fund International Health Policy Survey in Eleven Countries
Many OECD countries have undergone reforms over the past decade to introduce advanced roles for nurses in primary care to improve access to care, quality of care and/or to reduce costs. This working paper provides an analysis of these nurse role developments and reforms in 37 OECD and EU countries. Four main trends emerge: 1) the development in several countries of specific advanced practice nursing roles at the interface between the traditional nursing and medical professions; 2) the introduction of various new, supplementary nursing roles, often focused on the management of chronic conditions; 3) the rise in educational programmes to train nurses to the required skills and competencies; and 4) the adoption of new laws and regulations in a number of countries since 2010 to allow certain categories of nurses to prescribe pharmaceuticals (including in Estonia, Finland, France, Netherlands, Poland and Spain).

Canton Vaud, Switzerland, November 2017

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APN: Christine Wyss   APN: Monique Sailer
APN: Corina Wyler
Advanced Practice Nurse in der mediX Praxis Altstetten

Publiziert am 4. April 2017 von Werner Mäder

ANP: Corinne Steinbrüchel

https://www.youtube.com/watch?v=G-QUkBMovrsf
Advanced Practice Nurses can take responsibility for an expanded scope of practice because they have expanded set of clinical competencies.
Advanced Practice Nurses- The evidence base

- APN (NP) vs. MD
- Interprofessional teams with APN vs. MD model
  - Systematic reviews and meta-analyses of RCTs
    - Donald et al. *Nursing Research and Practice* 2014; 896587

Care provided by APNs or teams including an APN is as least equal to MD care or care of teams without APN in view of process and clinical outcomes
(economic outcomes less evident given scarcity of research)

- Outcome research studies
  - Newhouse et al. *Nursing Economics* 2011; 29: 1-22
  - Maier et al. OECD Working paper November 15, 2017
  - Virani et al. *JACC*; 2015
  - Kuo et al. *Medical Care* 2015
This review demonstrates improved or non-inferiority results of nurse practitioner care in older people across settings. More well-designed, rigorous studies are needed particularly in relation to costs.
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Creating a value chain in healthcare

Only 1/3 of research evidence ever gets implemented

Efficacy
1. Demonstrate that it works

Effectiveness
2. Show it works in clinical practice

Sustainability
3. Keep it working

Scalability
4. Spread it system-wide

System Sustainability
5. Keep the system working

~17 years

Slide courtesy of L. Züllig, Duke University, USA

adapted from Kellam & Langevin 2003, Balas & Boren 2000
Bridging the Gap in view of integrated care for the elderly: *Paradigm shift*

(Damschroder et al. Implement Sci 2009, 4(1), 50)
Implementation research

Trial world

Paradigm shift

Real world
Overview integrated care models

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   - Veterans Health Administration

Implementation science projects currently carried out at Institute of Nursing Science, DPH, UNIBAS

INSPIRE: Implementation of an Integrated Community-based Care Programme for Senior Citizens

(WHO Regional office for Europe, 2016)
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4. INSPIRE: Developing and implementing a community care model for elderly care
INSPIRE

Implementation of an Integrated Community-based Care Programme for Senior Citizens

Funding by:

Main INSPIRE stakeholders:

Dr. J. Sommer & Frau G. Marty
Dr. Med. Carlos Quinto
Frau Sabine Eglin
Basel-Landschaft (fastest aging Canton CH after Ticino): laboratory for CH and EU – rural / urban setting

Total population in December 2016: n = 289,923

- aged ≥65 years n = 61,191 21.3% (vs. EU 19.2%)
- aged ≥80 years n = 17,321 6.03% (vs. EU 5.3%)

Abbildung 10: Prognose zur Bevölkerungsentwicklung 80+

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<td>Veränderung zu 2013</td>
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<tr>
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<td>22.3%</td>
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Quellen: Statistische Ämter BL und BS
Policy is already prepared!!!

Approved new legislation (start 1st Jan 2018):

**Altersbetreuungs- und Pflegegesetz (APG)**

1. Reorganisation of BL in **Versorgungsregionen**
   → requires collaboration on level of Gemeinden

2. **Information- und Beratungsstelle** in the care region
   They have to provide information about ageing and ageing-related matters; provide advice and conduct needs assessments by a nurse staff member

3. The care regions need to create a **care concept** to ensure that appropriate outpatient, intermediate and inpatient care and nursing care, including offers for assisted living and dementia, are provided

→ **INSPIRE** Collaboration with Department Public Health UNIBAS
INSPIRE aims

- to develop and implement an integrated community care program for senior citizens in Canton Baselland

- To evaluate the success of the implementation and the impact of the program on senior citizen-, provider- and health systems level using advanced methods in public health and implementation research.

Main INSPIRE stakeholders:
Project phases and methodology

INSPIRE: Implementation of a Community-based Care Program for Senior Citizens

WP3: Survey + geospatial analysis
WP2: Literature review
WP4: Adaptation and protocol development
WP5: Monitoring system
Big data, population cohort
WP6: Feasibility and evaluation of process and outcomes

WP1: Stakeholder engagement
2017/2018

2019

2020
Example of an integrated nurse-led community model of care

1. Healthy ageing and frailty prevention
   • provide information about ageing and ageing-related matters
   • e.g. Public health programs to increase physical activity, improve nutrition, vaccine campaigns, etc.

2. Social services
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Informations- und Beratungsstelle

Stratification
- Low risk
  - Frailty prevention
  - Patient & family in charge
- Medium risk
  - Complication prevention
  - Nurse-led follow-up
- High risk
  - Interdisciplinary case-management
The INSPIRE research team

- Nursing Science
  - Dr. Mieke Deschodt, Dr. Franziska Zuniga, Prof. Dr. Sabina De Geest

- Swiss TPH
  - Prof. dr. Nicole Probst-Hensch, Prof. dr. Jürg Utzinger, Prof. dr. Nino Kuenzli

- Basel Institut für Klinische Epidemiologie & Biostatistik
  - PD Dr. Matthias Briel, Prof. Dr. med. Heiner C. Bucher

- Institute of Pharmaceutical Medicine
  - Prof. Dr. Matthias Schwenkglenks

- Departement für Sport, Bewegung und Gesundheit
  - Prof. Dr. Arno Schmidt-Trucksäss, PD Dr. Timo Hinrichs,

- Institut für Hausarztmedizin
  - Prof. Dr. Andreas Zeller

Main INSPIRE stakeholders:
Conclusion

• Integrated care: stratification of populations & combined social and health interventions
• Outcomes research focusing on evaluation of integrated care models for the elderly show some benefits yet evidence remains limited
• Nurses /Advanced Practice Nurses are an inherent part of integrated care solutions for the elderly. The evidence show at least equal quality of care compared to comparison groups.
• Implemention research methods enhance the contextual relevant development of interventions and to support their implementation in real life settings
• INSPIRE is a community based care model that is developed, implemented and evaluated in Basel- Landschaft (2017-2020)