



**ROBERT GORDON  
UNIVERSITY ABERDEEN**



International Network for  
Health Workforce Education

# Developing an interprofessional online medication alert system for people with long term conditions

**Professor Lesley Diack**

**School of Pharmacy and Life Sciences**



**ROBERT GORDON  
UNIVERSITY ABERDEEN**

**UNIVERSITY of  
STIRLING**



**DIGITAL  
HEALTH & CARE  
INSTITUTE**

**pamis**  
*promoting a more inclusive society*



# Phase 1 of project

‘A feasibility and evaluation study to establish the scope for the development of an electronic medication adherence software linking patients, carers, care homes, pharmacists and GPs for better support of patients’ medication.’

**[www.rgu.ac.uk/emaps](http://www.rgu.ac.uk/emaps)**



# Why – context?

- Adverse drug related events (ADREs) are a principal cause for admissions to A&E
- The risk of ADREs increases with polypharmacy
- Higher risk with those who receive medications in multiple drug categories
- Medication reviews have identified elements of ‘overtreatment’



# Why - Scotland?

- Empower patients/carers to be more engaged in their pharmaceutical care
- Improve quality of life/decrease hospitalisations
- Create an interprofessional mobile app to support patient centred care
- Become part of interoperability of pharmacy systems



# American case study

- Electronic medication management program (EMAS<sup>®</sup>), developed/tested in USA
- Link between patients, carers, the pharmacists and digitalised medical records
- EMAS<sup>®</sup> implemented in over 1,200 nursing homes/300+ pharmacists in the US
- Joint medication management to reduce preventable ADRs



# Settings

1. Care Homes
2. Third sector
3. Key stakeholders - Local and National government



# Care Homes

Six care homes:

Four care home managers, one matron, two deputy managers, two unit managers, three staff nurses (RGN), five senior carers/senior care assistants/workers.

Area Classification*	Care Home
Large urban area	3
Other urban area	2
Accessible small town	0
Remote small town	0
Accessible rural area	1
Remote rural area	0
Total	6



\*Scottish Government Urban/Rural Classifications 2013-2014: 6-fold classification



# Third sector – family carers

- 15 parents caring for a son/daughter with profound and multiple learning disabilities –
- Managing the polypharmacy for their child
- Diverse age ranges of carer and child
- Urban, rural and remote areas
- Variety of IT literacy





# Key Stakeholders

- 22 Interviews:- Healthcare related professionals
- Local and national government levels/  
Practitioners and third sector staff
- Topics included – data infrastructure, engagement, pharmacy systems, health systems, Care homes, care at home and digital health



# Findings - Benefits

- Could facilitate reduction in time communicating with GPs/healthcare staff
- Carers more time to engage, and less frustrated .
- Action was likely to come from the record and not 'forgotten about'.
- May facilitate the reduction in prescribed medicine
- System viewed as accessible and easy to use, and with training it was believed would be able to use it quickly.



# Findings - Recommendations

- Need to have added benefit, not just replacing what they already have
- Inclusion of a specific function for medication review
- Integration with medication administration system would be beneficial
- Care homes, carers and GPs are moving over to electronic systems



# Findings - Challenges

- Healthcare professionals
- Technical challenges
- Financial issues
- Staff issues
- Care home issues



# Any questions

