



PRO.M.I.S.

Programma Mattone Internazionale Salute

Transforming the challenge of an ageing population into an opportunity. The experience of the European Regions

NORTHERN IRELAND: MEDICINES OPTIMISATION

23-24 March 2017

Rome

Elaine Colgan
Department of Health

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EIP on AHA

PREDICTED OUTCOMES

- Decreased length of hospital stay
- Decreased hospital readmission rate
- Reduced wastage of patients' drugs
- More accurate drug history
- Improved medicine use
- Improved use of nursing and doctors time
- Improved patient safety
- Faster discharge



TARGET POPULATION

- 65 years or older and / or a previous hospital admission within the last 6 months
- Taking at least 4 or more regular medications
- Taking high risk drugs
Received IV antibiotics on day 1 of admission
- Began in one Trust area

AIM

- To optimise the benefits that patients gain from prescribed treatments
- through innovative technology-supported solutions
- delivered through intra-professional and intra-sectoral systems change

TASKS UNDERTAKEN

Team of Pharmacists and Technicians

- Communication with primary care on admission
- Accurate drug history - medicines reconciliation
- Management of patients' own drugs
- Inpatient management including counselling
- Pharmacist discharge and counselling
- Communication with primary care on discharge

STAKEHOLDER BUY -IN

- All relevant stakeholders were involved at the outset
- Integration of the key healthcare team members
- A multidisciplinary collaborative approach to reach consensus on clinical products based on safety and quality

FINANCIAL INVESTMENT

- Executive programme funds Euro 720k first three years for the pilot
- Based on positive outcomes further investment over the next five years Euro 4.8million
- Return on Investment:
 - For every 3 euro invested per head of population 15 Euro returned
 - Innovation programme 840k Euro



RESULTS

- Reduced length of stay by 2 days
- Faster medication rounds > 25 minutes per day saved
- Reduced readmission rate and reduced length of stay on readmission 5.8 days
- Improved Medicines Appropriateness Index (17.48 to 5.69)
 - More accurate discharge < 1% error rate compared to 25% by medical staff
- Faster discharge > 90 minutes quicker

RESULTS

- Reduced risk adjusted mortality rate
- Reduction in 4.2 errors per admission kardex
- Reduced medicines administration error rate(8.3% to 1.3%)
- Nursing home:
 - Reduced costs of £48 per month per patient
 - Reduced ED attendances
 - 168 million Euro of efficiency gains
 - Improved satisfaction with the system by patients

COMPETITIVENESS, MARKET GROWTH, ECONOMY

- Digitalis Ltd Amsterdam
- Yarra Software Ltd Belfast
- Hospital Metalcraft England
- Orbisch Medisch Centrum Sittard Netherlands
- Iskus Health – Dublin
- Arran Healthcare – Dublin
- Goldshield- USA



Success factors

- Early stakeholder engagement
- Willingness to change systems and processes
- Good strategic and operational oversight
- Robust methodology in terms of both clear process measures and outcomes
- On-going reports and dissemination of progress including conferences and publications



Success Factors

- Development of enabling technologies
- Quality improvement model of change
- Better engagement with researchers
- Better values and outcomes through engagement with Pharma
- Concordance improvement through partnerships with patients and carers
- Improved dialogue with the technology industry
- Utilisation of Government innovation incentives in pursuit of the health and well being agenda



TRANSFER SUCCESS

- Another Trust in Northern Ireland
- Regional in Northern Ireland
- Numerous Trusts in England
- Uppsala in Sweden
- Skane in Sweden
- Tallaght Hospital in Southern Ireland
- Drogheda Hospital In Southern Ireland
- Central Norway

UPPSALA UNIVERSITY HOSPITAL SWEDEN

ULRIKA GILLESPIE ET AL

- Patients over 80 years of age
- 16% reduction in hospital visits
- 47% reduction in ED attendances
- 80% reduction in drug related admissions

EDUCATION AND TRAINING

- Colleagues from
- Sweden
- Norway
- South of Ireland
- Erasmus programme with Poland
- Programme with the Spanish Hospital Pharmacists Association
- Exchange programme with Orbisch Medisch Centrum Sittard, Netherlands
- Jordan
- Numerous visits from English Colleagues
- New Zealand

LESSONS

- Realistic timelines
- Full stakeholder engagement and ownership
- Ensure that robust measures are determined at the outset
- Awareness of the difficulties in developing enabling technologies from both a hardware and software viewpoint
- The importance of ensuring paper based methods work before automating
- Identifying commercial partners



Elaine Colgan

elaine.colgan@health-ni.gov.uk

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