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Medicines Optimisation Innovation Centre



Smarter Medicines Better Outcomes

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- › Research
- › Quality Improvement
- › Knowledge transfer
- › Innovation

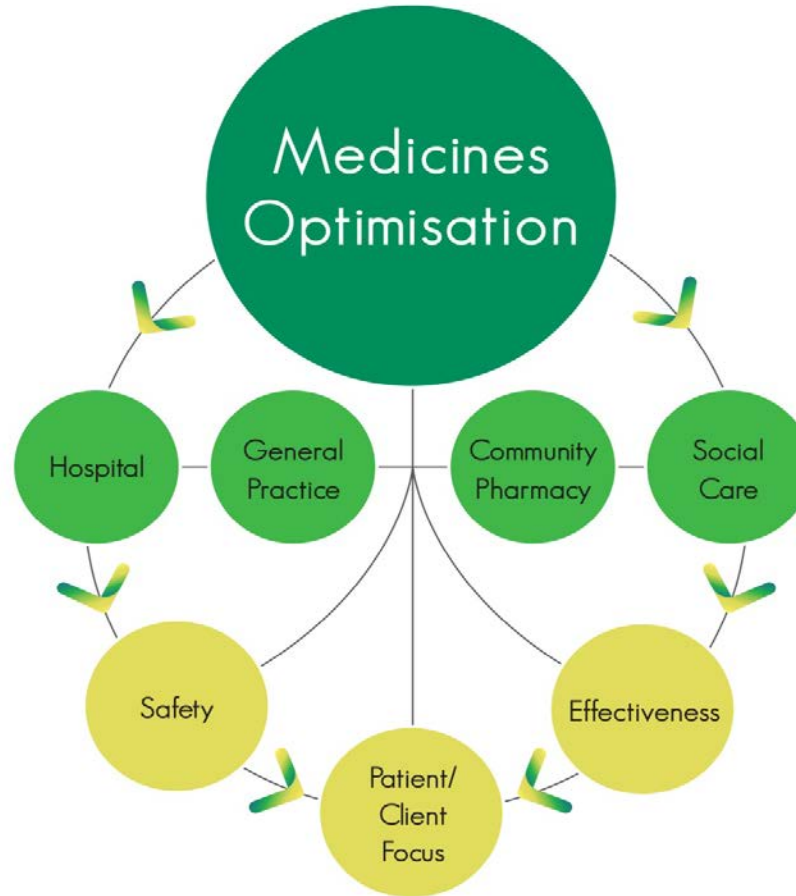
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Practice Unit

- Antrim Area Hospital Academic Clinical Pharmacy Practice Unit was set up in 1994 with School of Pharmacy The Queen's University of Belfast (Professor James Mc Elnay)
- October 2015
- Over 60 papers
- Almost 100 posters and abstracts
- 13 PhDs
- 50 MSc and Diplomas

Medicines Optimisation System



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Integrated medicines management (IMM)

Drug history at admission reduction of 4.2 errors per patient

Length of stay reduced by 2 days

Increased time to readmission (20 days)

Kardex monitoring (inpatient) 5.5 interventions per patient

Faster medication rounds > 25 minutes per day saved

Faster discharge > 90 minutes quicker

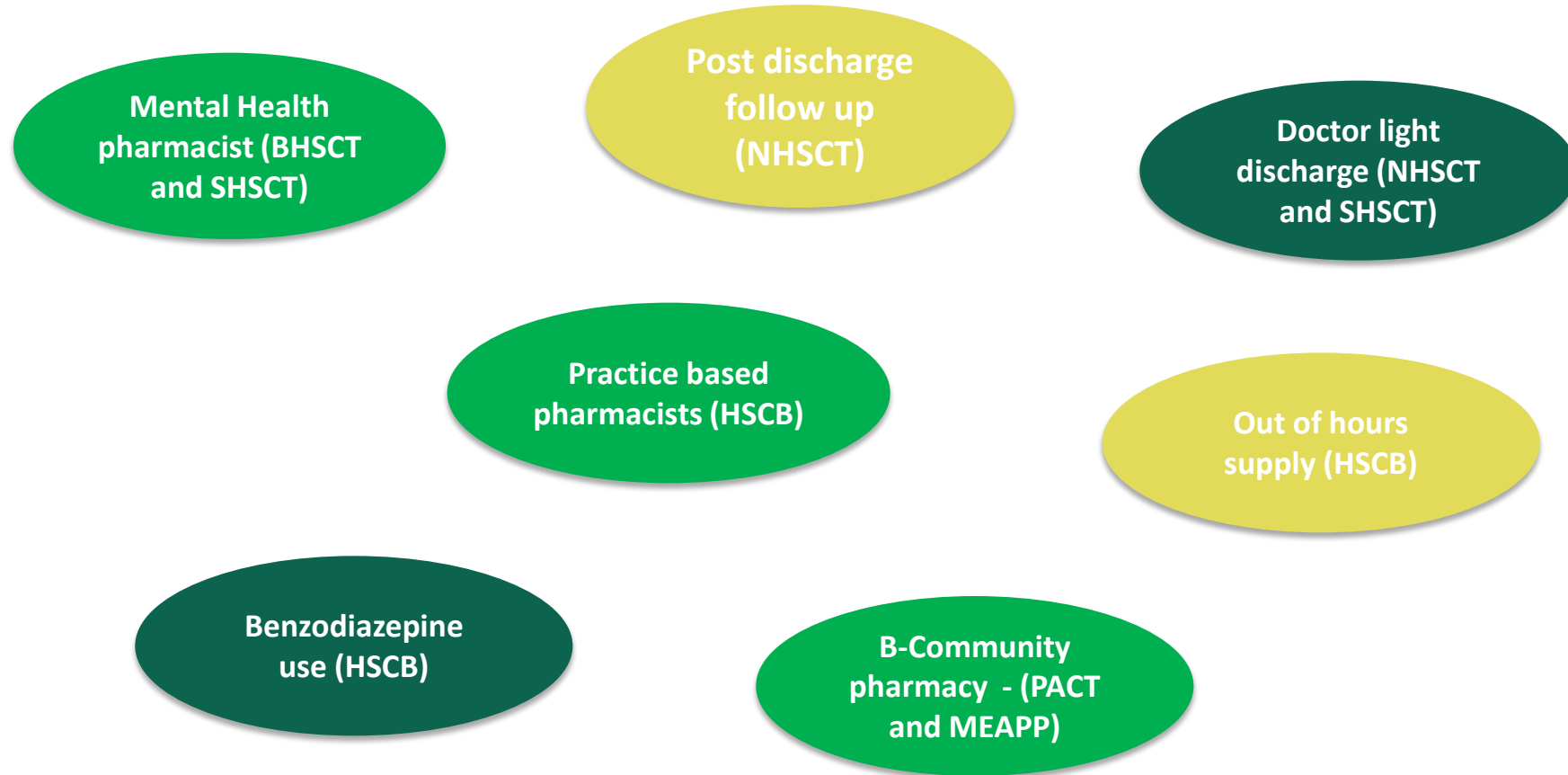
More accurate discharge < 1% error rate compared to 25%

Reduced risk adjusted mortality rate

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MO: completing the picture

Systematic testing and scaling



Case management project

**Queen's University
Belfast**



**Wessex Academic
Health Science network**



eahsn
Eastern Academic
Health Science Network

The logo for the Eastern Academic Health Science Network (eahsn), featuring a stylized graphic of four interconnected circles in blue, yellow, and purple, and the text "eahsn Eastern Academic Health Science Network" to the left.

**Eastern Academic
Health Science network**



**Association of British
Pharmaceutical Industries (ABPI)**

The logo for the Innovation Agency, featuring a stylized graphic of a target or bullseye, and the text "INNOVATION AGENCY Academic Health Science Network for the North West Coast" to the right.

**North West Coast Academic
Health Science network**

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Health Care Acquired Infections

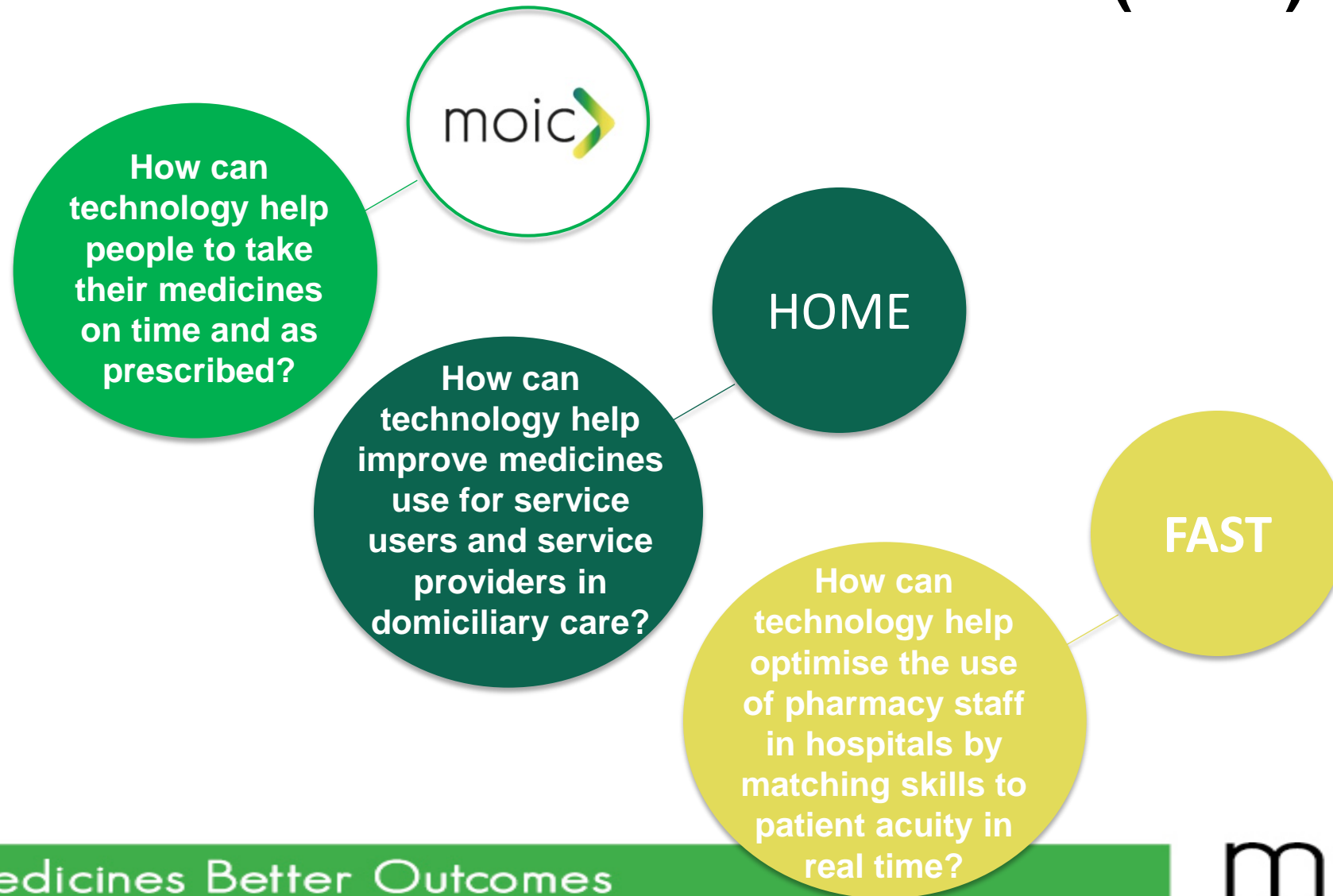
(Microbiology, Infection Control and Hotel Services)

- Antimicrobial Stewardship
- Alcohol gel
- Hand hygiene
- Chlorhexidine products/formulations
- Chlorine dioxide
- Use of procedure packs
- Environmental processes

Enabling technology

- › Safe therapeutic economic pharmaceutical selection (STEPSelect)
- › Electronic pharmacist intervention clinical system (EPICS)
- › Medicines reconciliation and analytics software (Writemed)
- › Antimicrobial surveillance system (LAMPS)

Medicines optimisation: Small Business Research Initiative(SBRI)



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Pharmaceutical companies



Currently scoping a project related to an outcomes based value model including Health Economics (SEHSCT, NHSCT, WHSCT, GP Federations, Clinical Information Officers)



Looking at physical health aspects related to mental health medications(WHSCT, BHSCT, SHSCT and NHSCT)

Non pharmaceutical companies

HCAI

Iskus Health Ltd
Goldshield Ltd
Cardinal Health

Point of care testing

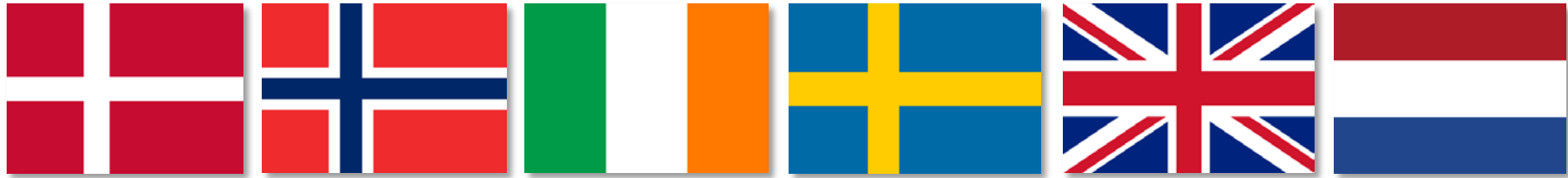
Hibergene
Accelerate

Data Analytics

Healthcare Analytics Ltd
Analytics Engines Ltd



Educating and training colleagues via knowledge transfer



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Tallaght Hospital Dublin Ireland (PACT)



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TALLAGHT HOSPITAL DUBLIN IRELAND

TAMMY GRIMES ET AL

- Decreased medication errors at discharge
- No patient experienced an potentially serious medication error
- Improved medicines appropriateness index(MAI) in patients over 65
- Improved MAI from pre –admission to admission
- Improved MAI from admission to discharge

JANUARY 2008



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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

NORWAY

Janne Kutschera-Sund

- IMM model in all seven hospitals in Central Norway - Namsos, Levanger, St Olavs University Hospital in Trondheim, Kristiansand, Molde, Alesund, and Volda
- All four regional hospital pharmacy trusts have agreed on the model
 - Thirty full-time pharmacist positions
- One PhD in progress plus six Masters linked to IMM



- Dr. Hugo van der Kuy
- Zuyderland Medical Centre
- Hospital Pharmacist
- Clinical Pharmacologist
- Director of Pharmacy
- Research Co-ordinator
- Board Member of Medical Staff





European Connected Health Alliance

The Global Connector in Healthcare

Bringing people, organisations, needs and solutions together

Medicines Optimisation inter-ecosystem group

www.echalliance.com

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@ECHalliance

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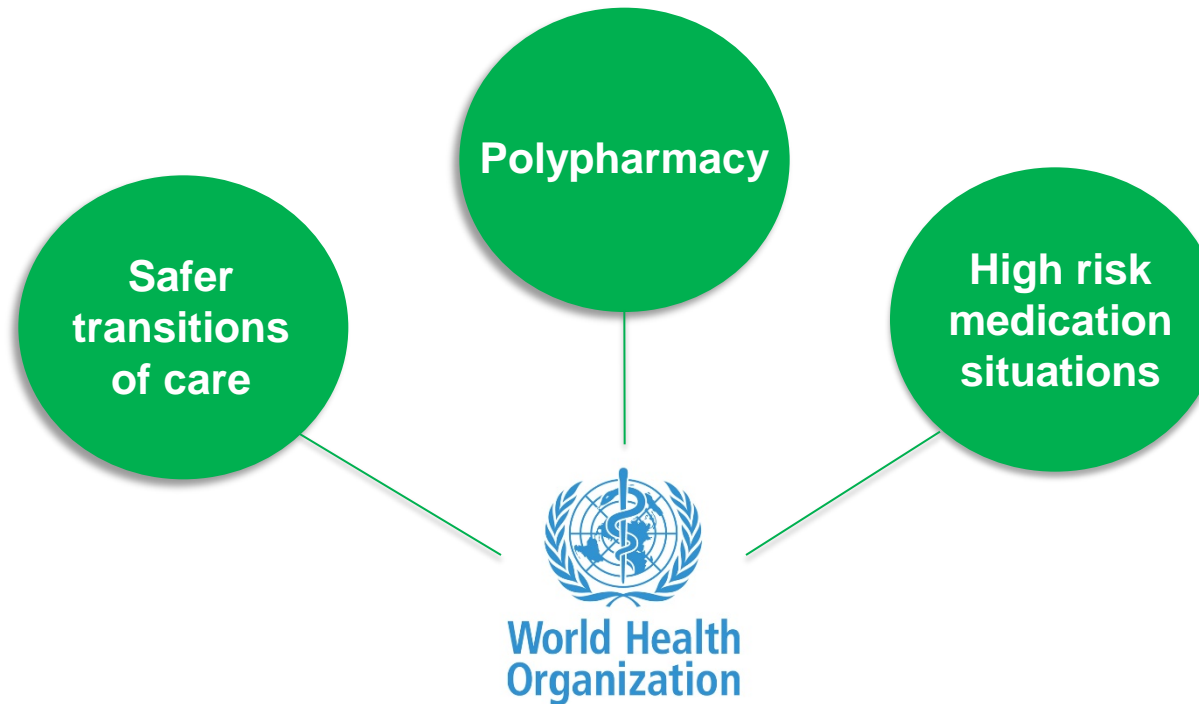


European Innovation Partnership on Active and Healthy Ageing



- › 2016
- › EU Reference site
- › 4 stars
- › Twinning with NW Coast, Catalonia & Oloumuc

WHO Global Challenge: *Medication without harm*



Aim: medication harm reduction of 50% by 2023

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Growing Connections

- HSC Research & Development Division including HSC Innovations –Dr David Brownlee
- Ulster University –pharmacy, microbiology, analytics, Connected Health Innovation Centre (CHIC)
- Quality Improvement HSCQI -Dr Anne Kilgallen
- IHI – Frank Federico , Pedro Delgado -since SPI 2 (2006)
- World Bank
- WHO Global Patient Safety Challenge –Medication without Harm involvement with the expert groups re High risk medication situations, polypharmacy and safer transitions of care- Dr Neelam Dhingra-Kumar

Further Dissemination (2015-2018)

- 10 publications
- X conference abstracts/proceedings
- 6 meetings /conferences organised



Current collaborative funding bids

Dutch Private Foundation

Implementation of microbial stewardship in hospitals in Ghana

Interreg

Our Lady of Lourdes Hospital Drogheda
Queens University Belfast
Trinity College Dublin

CoST

In association with European Colleagues led by Catalonia

Norwegian Research Council

with Norwegian, English and Swedish colleagues

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