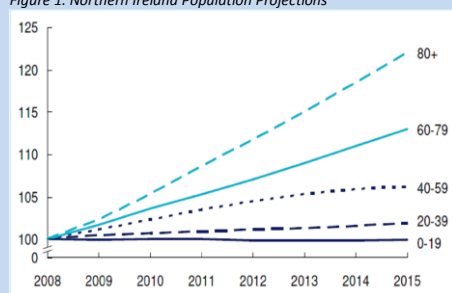


Evaluation of Pharmacist Independent Prescriber (PIP) Nursing Home Medication Reviews 2012/13

Introduction

Northern Ireland (NI) has the fastest growing population in the UK and it continues to grow. Currently there are 1.8 million people in NI and this is expected to rise to 1.94 million by 2022. From a Health and Social Care perspective, possibly the most significant factor of this rise is the increasing numbers of older people. The number of people over 75 years and 85 years old will increase by 40% and 58% respectively by 2020.¹

Figure 1. Northern Ireland Population Projections¹



Older people are more likely to develop a long term condition (LTC) and have higher rates of co-morbidities (one or more illness) and are, therefore, more likely to be prescribed multiple medicines. The Institute of Public Health in Ireland have estimated that by 2020 prevalence of LTCs in NI will increase by 30%.² Recent research reviewed 315 patients in NI in long stay elderly facilities. The average number of medicines per resident was 10, 67% were taking one potentially inappropriate medicine and 22% were taking three or more potentially inappropriate medicines.

Inappropriate prescribing is the use of a medicine 'for which the risks are greater than the potential benefits, especially when there are more effective, safer alternatives to treat the same condition'

Inappropriately prescribed medications are important for two reasons:

1. They can increase adverse drug effects, linked to increased mortality, morbidity and need for secondary care services
2. They increase the cost of healthcare, not only the cost of unnecessary medicines but the cost to health services for those who suffer adverse incidents e.g. falls and fracture and associated hospitalisation.³

In 2011 Transforming Your Care (TYC): A Review of Health and Social Care in NI was undertaken. TYC identified the need for a focus on effective medicines management particularly in high risk patients. An important service area is the provision of medicines review for patients in care homes.¹

Aims

PIP nursing home medication reviews aim to:

- improve quality and safety of prescribing,
- improve patient outcomes
- improve the patient experience for nursing home residents.

Operational Aspects

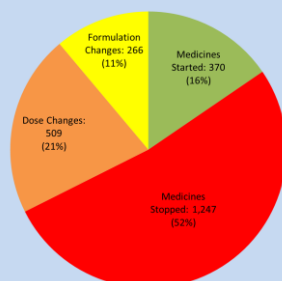
The HSCB funded 30 qualified PIPs with prior training for 35 hours to conduct medication reviews for residents in 31 GP surgeries across NI.

Medication reviews involved a paper based review of a resident's medication through computer and paper clinical notes, then a visit to the home to clarify issues with lead nurse and/or patient. PIPs could then action prescribing or non-prescribing interventions depending on competence. Interventions outside of the PIPs competence could be reviewed with a lead GP to be actioned or not. All actioned interventions were communicated with the patient or family, nursing staff at home and recorded on GP clinical systems (by the PIP).

Results

The 30 PIPs reviewed the medication of 1,130 nursing home residents (NI has approximately 11,000 nursing home residents). PIPs made 3,807 interventions (2,392 prescribing and 1,415 non-prescribing) and actioned 84% of them without the need for GP review.

Figure 2. Breakdown of type of prescribing intervention



PIPs estimated annual costs savings associated with all prescribing interventions by using the cost of the drug (on GP clinical system) for 12 months e.g.

- **Medicine stopped:** Rosuvastatin 20mg once daily (£26.02 per month), estimated annual cost saving = **£312.24** (£26.02 x 12)
- **Medicine started:** Simvastatin 40mg once daily (£1.18 per month) estimated annual cost = **£14.16** (£1.18 x 12)

The estimated annual cost savings associated with all prescribing interventions was **£213,713**.

Figure 3. Percentage of estimated annual cost savings and estimated cost savings associated with prescribing interventions by BNF chapter



Examples of the non-prescribing interventions can be seen in Figure 4.

Figure 4. Examples of non-prescribing interventions

nursing home karex rewritten	ordering appropriate lab tests
blood pressure assessment	allergy status updated
pulse assessment	referral to secondary care i.e. mental health services

Although it was not possible to quantify these interventions in terms of cost savings they support the principles of safe and quality prescribing practice and have potential indirect savings i.e. interventions could contribute to avoiding acute hospital admissions due to administration of a medicine from an error on a karex.

Discussion

It is clear that regular PIP nursing home medication reviews can improve the quality and safety of prescribing in this setting whilst realising substantial prescribing savings and indirect savings for the HSC through more cost effective and appropriate prescribing. PIP medication reviews support a greater provision of services for patients residing in nursing homes, whilst helping to develop a more flexible pharmacy workforce to help primary care providers absorb the increased demand for services in line with TYC. The initiative also supports the following TYC recommendations:

1. Prevention and enabling individual responsibility for health
2. A stronger role for pharmacy in medication management of LTCs
3. A greater role for nursing home care in avoiding hospital admissions

References

1. Compton J. Transforming Your Care: A Review of Health and Social Care in NI 2011
2. The Institute of Public Health in Ireland. Making Chronic Conditions Count 2010
3. CARDI. An evaluation of the inappropriate prescribing in older residents in long term facilities in the greater Cork and NI regions using STOPP and Beers' criteria