The Medicines Management Programme (MMP) – update
3rd National Medicines Forum
RCPI 30th April 2015
Michael Barry
The Medicines Management Programme (MMP) was established in January 2013

- Aim - **sustained** national leadership relating to
  - Safe
  - Effective
  - Cost-effective prescribing
Drug expenditure in Ireland

Pharmaceutical Expenditure (Ingredient Cost) Under The Community Drug Schemes 2014 ≈ €1.43 billion

- **GMS**: 59% €849m
- **HTDS**: 29% €424m
- **LTI**: 7% €105M
- **DPS**: 4% €53M
- **OTHER**: 1%

€485 million in 2014 (25% of total expenditure)
Most frequently prescribed medicines

- Acetylsalicylic Acid
- Atorvastatin
- Levothyroxine sodium
- Paracetamol
- Bisoprolol
- Calcium combinations
- Salbutamol (Inhaled)
- Esomeprazole
- Amlodipine
- Rosuvastatin
Most expensive medicines

- Adalimumab
- Clinical nutritional products
- Etanercept
- Atorvastatin
- Salmeterol + other drugs for OAD
- Pregabalin
- Esomeprazole
- Ivacaftor
- Formoterol + other drugs for OAD
- Tiotropium
Generic dispensing under the Community Drugs Schemes – Q3 2014

INN generic dispensing rate has doubled over the last 12 months
Generic dispensing under the Community Drugs Schemes – Q3 2014

Expenditure €

- INN Generic (5%)
- Branded Generic (7%)
- Brand - off patent (10%)
- Patent Brand (78%)

The % expenditure on patent branded products has increased significantly.
Affordability – funding very high cost drugs!

Eculizumab is a humanized monoclonal antibody that blocks the activation of terminal compliment at C5. It is indicated for the treatment of paroxysmal nocturnal haemoglobinuria (PNH) and atypical haemolytic uraemic syndrome (aHUS).

Eculizumab (Soliris) costs € 430,000 per patient per annum.
So what can we do?

- Reduce expenditure in the off patent side of the market

- Apply rigorous HTA to the patented side of the market

- INN Generic (5%)
- Branded Generic (7%)
- Brand - off patent (10%)
- Patent Brand (78%)
Reference pricing

The HSE sets a price for the original branded product and its generics (phase 1 reference pricing)

• If the patient wishes to obtain the original branded product they will have to pay the difference between the reference price and the price of the originator product

• Some 37 products have been reference priced to date

• Atorvastatin (Lipitor) was the first drug to be reference priced on 1\(^{st}\) November 2013

• Esomeprazole (Nexium) followed on the 1\(^{st}\) January 2014.
Total expenditure on PPIs under the GMS scheme from Jan’10 to Aug’14

**Reference pricing**
- Lansoprazole 1/3/2014
- Omeprazole 1/3/2014
- Pantoprazole 1/4/2014
- Rabeprazole 1/5/2014

**Esomeprazole reference priced 1/1/2014**

Total PPI expenditure (GMS & DP) - August 2013 = €7,444,232 ——> August 2014 = €4,527,540

$\Delta = €2,916,692$/month
Total statin expenditure (GMS & DP) - August 2013 = €8,620,780 → August 2014 = €4,156,212

\[ \Delta = €4,464,568/\text{month} \]
As prescribers we can influence drug expenditure even after reference pricing.
Statins - SIMVASTATIN
PPI - LANSOPRAZOLE
ACE inhibitor - RAMIPRIL
ARB - CANDESARTAN
SSRI - CITALOPRAM
SNRI - VENLAFAXINE
LABA + ICS – Budesonide + Formoterol (Bufomix)
Antimuscarinics - TOLTERODINE
Simvastatin is recommended as the statin of first choice

- Over 310,000 patients receive a statin each month
- Approx 4.2 million statin prescriptions issued/annum
- Total expenditure exceeds €50 million/annum
- The calculated ingredient cost per prescription item for simvastatin remains the lowest in the therapeutic class
Calculated Ingredient cost per statin prescription after reference pricing

<table>
<thead>
<tr>
<th>Cost/prescription</th>
<th>Simvastatin</th>
<th>Pravastatin</th>
<th>Fluvastatin</th>
<th>Atorvastatin</th>
<th>Rosuvastatin</th>
</tr>
</thead>
<tbody>
<tr>
<td>€8.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>€7.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>€6.00</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>€5.00</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>€4.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>€3.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>€2.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>€1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>€0.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If we prescribed any other statin in preference to rosuvastatin savings of over € 4 million/year could be made.
Lansoprazole is recommended as the PPI of first choice

- Over 265,000 patients receive a PPI each month
- Approx 3.6 million PPI prescriptions issued/annum
- Total expenditure exceeds €55 million/annum
- Esomeprazole is one of the most expensive PPIs and accounts for over 32% of all PPI prescriptions
Calculated Ingredient cost per PPI prescription after reference pricing

If we prescribed any other PPI (with the exception of rabeprazole) in preference to Esomeprazole (Nexium) savings of over €1.4 million/year could be made.

$\text{ABE} = €1,400,000 \text{ per annum}$
Calculated Ingredient cost per PPI prescription after reducing to the ‘lower’ maintenance dose.

If we prescribed the lower maintenance dose of PPI’s (in 80% of cases) savings of approximately €2.27 million/year could be made.

Reduction to maintenance dose = €2.27 million per annum
National and Regional Prescribing rates of Preferred Drugs

Highest prescribing rates for ‘preferred drugs’

RAMIPRIL as % of all ACE inhibitors = 66% [SHB]
Candesartan as % of all ARBs = 13% [SEHB]
Lansoprazole as % of all PPIs = 31% [NEHB]
Simvastatin as % of all Statins = 10% [NWHB]
Citalopram as % of all SSRIs = 23% [ERHA]
Venlafaxine as a % of SNRIs = 72% [ERHA]

Local Prescribing Rates 2014

RAMIPRIL as % of all ACE inhibitors = 48%
Candesartan as % of all ARBs = 11%
Lansoprazole as % of all PPIs = 25%
Simvastatin as % of all Statins = 5%
Citalopram as % of all SSRIs = 23%
Venlafaxine as % of all SNRIs = 72%
Inhaled medicines for Asthma and COPD

• There are over 50 licensed inhalers for asthma and over 25 licensed inhalers for COPD

• Expenditure on inhalers for asthma and COPD is approx €98 million per annum (€86 million GMS & €12 million DPS).

• It is estimated that COPD accounts for 84% of this expenditure (€82 million/annum)
Salmeterol + fluticasone (Seretide) [34%]

Tiotropium (Spiriva) [19%]

Formoterol + budesonide (Symbicort) [17.5%]

Salbutamol [10%]
ICS and LABA inhalers for Asthma & COPD

- **€50 million** on ICS and LABA combination inhalers (€44 million GMS) e.g. Symbicort® and Seretide®
  - €2.4 million/month Seretide® (GMS only)
  - €1.3 million/month Symbicort® (GMS only)

- New products in this group including hybrid ("generic") inhalers offer opportunity to reduce expenditure

- The ‘Symbicort’ equivalent **Bufomix** (budesonide 320 µg + formoterol 9 µg) is **35% cheaper** than Symbicort **42% cheaper** than Seretide

- Therefore the most cost-effective inhaled corticosteroid + long acting beta 2 agonist combination product is **Bufomix**
Atrial fibrillation accounts for 86.9% of all applications for NOACs.

- Reimbursement approval for new Anticoagulant
  - Over 70% of NOAC prescribing is for patients ≥ 70 years
    - 70-74 yrs = 17.53%
    - 75 + yrs = 52.51%

The new oral anticoagulants

Steps in coagulation | Coagulation pathway | Drugs
--- | --- | ---
Initiation | TF/VIIa | 

Propagation | Xa | Prothrombinase complex | Rivaroxaban, Apixaban, Edoxaban

Prothrombin (II) | Xa | 

Fibrin formation | Thrombin (Ia) | Dabigatran etexilate

Fibrinogen | Fibrin
<table>
<thead>
<tr>
<th></th>
<th>RE-LY(^3)</th>
<th></th>
<th>ROCKET-AF(^4)</th>
<th></th>
<th>ARISTOTLE(^5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dabigatran</td>
<td>Warfarin*</td>
<td>Rivaroxaban</td>
<td>Warfarin*</td>
<td>Apixaban</td>
</tr>
<tr>
<td></td>
<td>110 mg</td>
<td>(n=6015)</td>
<td>(n=7131)</td>
<td>(n=7133)</td>
<td>(n=9120)</td>
</tr>
<tr>
<td></td>
<td>150 mg</td>
<td>(n=6076)</td>
<td></td>
<td></td>
<td>(n=9081)</td>
</tr>
<tr>
<td>RR (95% CI)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>stroke or systemic</td>
<td>1.54%</td>
<td>1.11%</td>
<td>2.1</td>
<td>2.4</td>
<td>1.27%</td>
</tr>
<tr>
<td>embolism</td>
<td>1.71%</td>
<td>0.5</td>
<td>0.26</td>
<td>0.44</td>
<td>0.24%</td>
</tr>
<tr>
<td>Haemorrhagic stroke</td>
<td>0.12%</td>
<td>0.10%</td>
<td>0.26</td>
<td>0.44</td>
<td>0.24%</td>
</tr>
<tr>
<td></td>
<td>0.38%</td>
<td>0.38%</td>
<td>0.44</td>
<td>0.44</td>
<td>0.47%</td>
</tr>
<tr>
<td>Intracranial haemorrhage</td>
<td>0.23%</td>
<td>0.32%</td>
<td>0.49</td>
<td>0.74</td>
<td>0.33%</td>
</tr>
<tr>
<td></td>
<td>0.76%</td>
<td>0.76%</td>
<td>0.74</td>
<td>0.74</td>
<td>0.80%</td>
</tr>
<tr>
<td>Fatal or disabling</td>
<td>0.94%</td>
<td>0.66%</td>
<td>1.28</td>
<td>1.75</td>
<td>0.50%</td>
</tr>
<tr>
<td>stroke</td>
<td>1.01%</td>
<td>1.01%</td>
<td>1.75</td>
<td></td>
<td>0.71%</td>
</tr>
<tr>
<td>All deaths</td>
<td>3.75%</td>
<td>3.64%</td>
<td>4.5</td>
<td>4.9</td>
<td>3.52%</td>
</tr>
<tr>
<td></td>
<td>4.13%</td>
<td>4.13%</td>
<td>4.9</td>
<td></td>
<td>3.94%</td>
</tr>
<tr>
<td>Major bleed</td>
<td>2.87%</td>
<td>3.32%</td>
<td>3.6</td>
<td>3.4</td>
<td>2.13%</td>
</tr>
<tr>
<td></td>
<td>3.57%</td>
<td>3.57%</td>
<td>3.4</td>
<td></td>
<td>3.09%</td>
</tr>
<tr>
<td>TTR=64%</td>
<td></td>
<td></td>
<td>TTR=55%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TTR=64%</td>
<td></td>
<td></td>
<td>TTR=62%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Majority of patients</td>
<td>in Ireland receive the 110 mg b.d. dose</td>
<td></td>
<td></td>
<td>Only 50% of all patients in Ireland receive the 5 mg b.d. dose</td>
<td></td>
</tr>
</tbody>
</table>
NOACs – do the patients that you treat differ from those who participated in the clinical trials?

There are significant age differences between patients studied in the pivotal clinical trials and those being treated with NOAC in clinical practice e.g. % of patients at or above 80 years of age:

<table>
<thead>
<tr>
<th>Drug</th>
<th>Clinical Trial</th>
<th>PCRS database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rivaroxaban</td>
<td>18.5%</td>
<td>37.5%</td>
</tr>
<tr>
<td>Dabigatran</td>
<td>17%</td>
<td>37%</td>
</tr>
<tr>
<td>Apixaban</td>
<td>13.3%</td>
<td>45.5%</td>
</tr>
</tbody>
</table>

Implications:

Dose adjustment for dabigatran as such patients should be treated with 110 mg twice daily. Apixaban dose also influenced by patient age.

In addition to the age related reduction in CrCl which is of relevance for dabigatran, rivaroxaban & apixaban

The MMP recommends that NOACs are avoided where the CrCl < 30 ml/min
Resource implications
Total number of patients on anticoagulants under the GMS & DP schemes from January 2013 - July 2014

Patients

34,722

30,660

8,055

5,017

1,567

Dabigatran
Rivaroxaban
Warfarin
Apixiban
The new Reimbursement Approval form for NOACs – enhancing safety

<table>
<thead>
<tr>
<th>CHADS SCORING SYSTEM</th>
<th>CHADS-VASC SCORING SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARAMETER</td>
<td>SCORE</td>
</tr>
<tr>
<td>cardiac failure/LV dysfunction</td>
<td>1</td>
</tr>
<tr>
<td>hypertension</td>
<td>1</td>
</tr>
<tr>
<td>age ≥ 75 years</td>
<td>1</td>
</tr>
<tr>
<td>diabetes</td>
<td>1</td>
</tr>
<tr>
<td>stroke/TIA/thromboembolism</td>
<td>2</td>
</tr>
<tr>
<td>peripheral vascular disease/prior myocardial infarction/aortic plaque</td>
<td>1</td>
</tr>
<tr>
<td>age 65 – 74 years</td>
<td>1</td>
</tr>
</tbody>
</table>

CHADS score = CHADS-VASC score =

<table>
<thead>
<tr>
<th>HAS-BLED SCORING SYSTEM (To be completed for all applications)</th>
<th>PARAMETER</th>
<th>SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>hypertension (systolic BP&gt;160 mmHg)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>abnormal renal function, dialysis or creatinine &gt;200 μmol/l</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>abnormal liver function, bilirubin&gt;2 &amp; transaminases&gt;3x (ULN)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>stroke</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>bleeding history/predisposition to bleeding</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>labile INRs i.e. unstable/high INRs or time in therapeutic range &lt; 60%</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>drugs e.g. antiplatelet agents, NSAIDs</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>alcohol abuse</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

HAS-BLED score =

A HAS-BLED score ≥ 3 out of 9 indicates “high risk so caution is needed”

What is the calculated glomerular filtration rate (GFR) m/min? (1)

(1) Use the Cockcroft-Gault eqn to estimate the GFR = (140-age years) x (Weight kg) x constant [1.23 for males & 1.04 for females]/serum creatinine μmol/l.

Summary Final Check:

<table>
<thead>
<tr>
<th></th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>If CHADS score &gt;= 2?</td>
<td></td>
</tr>
<tr>
<td>If HAS-BLED score &lt; 3?</td>
<td></td>
</tr>
<tr>
<td>If Calculated GFR &gt; 30 ml/min</td>
<td></td>
</tr>
</tbody>
</table>

If No to any of the above, reconsider the use of NOAC
Prescribing guide for NOACs

www.hse.ie/yourmedicines

Prescribing tips

NOAC – Prescribing tips for NOACs
# Non-Valvular Atrial Fibrillation (NVAF)

## Apixaban

**Adjust dose for AGE, BODY WEIGHT, RENAL FUNCTION, and consider INTERACTIONS**

### DOSING GUIDELINES

<table>
<thead>
<tr>
<th>Treatment of NVAF</th>
<th>Interactions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard dose</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serum creatinine &gt; 133micromol/L (measured) AND ≥80yrs OR weight ≤60kg (Or any two of three above i.e. serum creatinine, age ≥80, weight ≤60kg)</td>
<td>CONTRAINDICATED with other anticoagulants (unless switching, then refer to individual SmPCs for guidance)</td>
<td></td>
</tr>
<tr>
<td>2.5mg BD</td>
<td>AVOID CONCURRENT USE (increased bleeding risk): Strong inhibitors of CYP3A4 and P-gp (e.g. Ketoconazole, Itraconazole, Posaconazole, Voriconazole)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anti-retrovirals – check SmPC for details</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAUTION (risk of reduced efficacy): Strong inducers of CYP3A4 and P-gp (e.g. carbamazepine, phenytoin, phenobarbitone, rifampicin, St Johns Wort)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAUTION (increased bleeding risk): NSAIDs including aspirin</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Antiplatelet agents including aspirin will increase risk of bleeding</td>
<td></td>
</tr>
<tr>
<td>CrCl 15-29ml/min [use Cockroft-Gault equation (SI units)] (regardless of age or weight)</td>
<td>CONTRAINDICATED in patients with hepatic disease associated with coagulopathy and clinically relevant bleeding risk. Not recommended in severe hepatic impairment.</td>
<td></td>
</tr>
</tbody>
</table>

### CONTRAINDICATED in CrCl < 15ml/min

<table>
<thead>
<tr>
<th>Treatment of NVAF</th>
<th>Interactions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5mg BD – EXTREME CAUTION, consider alternative (review HAS-BLED and other risk factors)</td>
<td>CONTRAINDICATED in patients with hepatic disease associated with coagulopathy and clinically relevant bleeding risk. Not recommended in severe hepatic impairment.</td>
<td></td>
</tr>
</tbody>
</table>

## Dabigatran

**Adjust dose for AGE, RENAL FUNCTION, GORD, and INTERACTIONS**

### DOSING GUIDELINES

<table>
<thead>
<tr>
<th>Treatment of NVAF</th>
<th>Interactions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 75 years (see also options below)</td>
<td>CONTRAINDICATED with other anticoagulants (unless switching, then refer to individual SmPCs for guidance)</td>
<td></td>
</tr>
<tr>
<td>150mg BD</td>
<td>CONTRAINDICATED: Ciclosporin, droxidopa, itraconazole, ketoconazole, tacrolimus</td>
<td></td>
</tr>
<tr>
<td>150mg BD or if LOW thrombotic risk and HIGH bleeding risk give 110mg BD</td>
<td>AVOID CONCURRENT USE (reduced efficacy): P-gp inducers (e.g. carbamazepine, phenytoin, rifampin, St Johns Wort)</td>
<td></td>
</tr>
<tr>
<td>110mg BD</td>
<td>CAUTION: P-gp inhibitors (e.g. amiodarone, clarithromycin, quinidine, ticagrelor)</td>
<td></td>
</tr>
<tr>
<td>110mg BD if high bleeding risk</td>
<td>Verapamil (P-gp inhibitor) – REDUCE DOSE of dabigatran (take verapamil and dabigatran at the same time)</td>
<td></td>
</tr>
<tr>
<td>Renal Impairment (CrCl 30ml/min-50ml/min)</td>
<td>CAUTION (increased bleeding risk): NSAIDs, including aspirin</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SSRI/SNRIs – increased risk of bleeding</td>
<td></td>
</tr>
<tr>
<td><strong>CONTRAINDICATED in CrCl &lt; 30ml/min</strong></td>
<td>CONTRAINDICATED in hepatic impairment or liver disease expected to have any impact on survival. Not recommended in hepatic impairment.</td>
<td></td>
</tr>
</tbody>
</table>

## Rivaroxaban

**Adjust dose for RENAL FUNCTION and consider INTERACTIONS**

### DOSING GUIDELINES

<table>
<thead>
<tr>
<th>Treatment of NVAF</th>
<th>Interactions</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard Dose</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20mg once daily</td>
<td>CONTRAINDICATED with other anticoagulants (unless switching, then refer to individual SmPCs for guidance)</td>
<td></td>
</tr>
<tr>
<td><strong>CrCl: 30-49ml/min</strong></td>
<td>AVOID CONCURRENT USE (increased bleeding risk): Strong inhibitors of CYP3A4 and P-gp (e.g. ketoconazole, itraconazole, voriconazole, posaconazole, HIV protease inhibitors)</td>
<td></td>
</tr>
<tr>
<td>15mg once daily (caution with concomitant medications which increase rivaroxaban plasma concentration)</td>
<td>AVOID: Dronedronate –(limited clinical data)</td>
<td></td>
</tr>
<tr>
<td><strong>CrCl: 15-30 ml/min (CAUTION)</strong></td>
<td>CAUTION: Strong inhibitors of CYP3A4 (e.g. clarithromycin) AND renal impairment</td>
<td></td>
</tr>
<tr>
<td>15mg once daily – EXTREME CAUTION, consider alternative</td>
<td>CAUTION (risk of reduced efficacy): Strong inducers of CYP3A4 and P-gp (e.g. carbamazepine, phenytoin, phenobarbitone, rifampicin, St Johns Wort)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAUTION (increased bleeding risk): NSAIDs, Platelet aggregation inhibitors including aspirin</td>
<td></td>
</tr>
</tbody>
</table>

### CONTRAINDICATED in CrCl < 15ml/min

**Important information: 15mg and 20mg tablets should be taken WITH FOOD**

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Reference: SmPC for Eliquis®(Apixaban), Pradaxa® (Dabigatran) and Xarelto® (Rivaroxaban) (format adapted from prescribing aid developed in GUH) Version 1.0 MMP May 2014
Therapeutic areas under review

- Pregabalin (Lyrica)
- Oral Nutritional Supplements
- Anxiolytics
- Hypnotics & Sedatives
Total number of Prescriptions under the GMS (Anxiolytics vs Hypnotics & Sedatives) 3 year trend

- **Anxiolytics**
  - 223,000 items
  - 106,000 patients
  - **Diazepam = 41%**
  - **Alprazolam = 39%**

- **Hypnotics & sedatives**
  - 106,000 patients
  - **Zopiclone = 40%**
  - **Zolpidem = 31%**
  - **Flurazepam = 9%**

**Expenditure**
- € 25.38 million/year
- **H&S = €16.9m**
- **A = € 8.48 m**
Generic Prescribing e.g

Pregabalin 150mg x 56 = € 27.55
Lyrica 150mg x 56 = € 68.87
Oral nutritional supplements

Total expenditure on nutritional products under the GMS Scheme from January 2011 to October 2013

Preferred Drugs
MEDICINES MANAGEMENT PROGRAMME

Health Service Executive
Other areas of interest to the MMP include:

- Prescribing of anti-TNF therapies, e-authorisation project
- New treatments for Hepatitis C (Hepatitis C Registry)
- Eculizumab for PNH & aHUS
- Use of Health Technology Assessment for existing therapies and diagnostics e.g. **pregabalin, lignocaine patches** (Versatis)
- Treatment of diabetic retinopathy
- The impact of Hospital prescribing on the Community Drugs Schemes
- Benzodiazepine prescribing
- **Oral Nutritional Supplements & diabetic test strips**
- Ongoing monitoring the utilisation and expenditure of medicines
UPDATE ON MANAGEMENT OF NON-VALVULAR ATRIAL FIBRILLATION

- Atrial fibrillation (AF) is a major risk factor for embolic strokes which are usually more severe than strokes due to other causes.
- The goals of therapy are to reduce the thromboembolic risk, control the heart rate and rhythm and relieve symptoms.
- Choice of antithrombotic therapy involves assessment of the risks of stroke and bleeding at an individual level.
- The risk of AF-related stroke changes over time, therefore patients should be re-evaluated regularly.
Third National Medicines Forum

Dr. Mary Jo MacAvin

April 30th 2015
NATIONAL MEDICINES INFORMATION CENTRE (NMIC)
[20 years a-growing!]

30th April 2015
Dr MaryJo MacAvin
Medical Advisor
Introduction

• Established in 1994

• Situated in St James’s Hospital Dublin

• Funded by money from the DOH&C/ HSE
Aims of the NMIC

To promote the **safe, effective and economic** use of medicinal products in patients by the **active and passive provision of accurate drug information** and advice to all members of the healthcare profession.
NMIC staff

• Full-time Medicines Information Pharmacists (chief / senior pharmacist grades)
• Two part-time Medical Advisers
• Secretarial support

PLUS

• External advisors and experts (help with peer review of publications)
Overall Functions of NMIC

1. Provision of information in response to queries from healthcare professionals in primary and secondary care on all aspects of therapeutic use of medicines

2. Provision of regular bulletins/newsletters to healthcare professionals (distributed via GMS postal system or via e-mail)

3. Educational role has developed over recent years
Drug Information Enquirer data: 2014 (NMIC)

Enquirer Status 2014

- Comm P'Cist 44%
- Hosp P'Cist 24%
- Gp/ P'Cist Gp 23%
- Hosp Dr's 6%
- Other 3%
Drug information category data: 2014 (NMIC)

Information Category 2014

- Admin/Dose: 18%
- Adverse Effects: 13%
- Avail/Supply: 7%
- Choice Therapy: 16%
- Preg/Breast Milk: 16%
- Identification: 2%
- Interactions: 16%
- Other: 10%
- Review: 1%
Sources of Information

- Not exhaustive:
  - www.medicines.ie prescribing information (SmPC) for most branded medicines authorised in Ireland
  - Health Products Regulatory Authority (previously the Irish Medicines Board) www.hpра.ie
    - Details on all authorised medicines in Ireland
  - British National Formulary www.bnf.org
  - www.hrb.ie: click on the Cochrane button for systematic reviews / meta-analyses
  - www.nice.org.uk: Website for UK National Institute for Health and Care Excellence
  - www.ffprhc.org.uk: Faculty of Sexual & Reproductive Healthcare
  - www.hpsc.ie: information on infectious diseases in Ireland, (see Topics A – Z) including some patient leaflets in different languages on some diseases (under “other languages” in the A-Z)
  - www.ema.europa.eu – the European Medicines Agency
  - Electronic databases available (Medline, Ovid, Micromedex etc)
The enquiry answering service is for all HCPs…

- Can contact the service by email, phone, letter, fax.
- Contact details are on all publications….
  - Telephone: 01 4730589/ 1850 727727
  - E-mail: nmic@stjames.ie
- Service is regularly monitored (monthly to users of the service and also internal peer review)
  - Audit tool is UK MI validated
Practicalities

When an enquirer contacts the NMIC the staff would usually request the following in relation to the enquiry:

- Patient-specific information (age, pregnant/not if female, other medical factors)
- Disease-specific information (e.g. for infection is it new/uncomplicated, recurrent, prior treatment)
- Degree of urgency for reply
  - *Time allowed by enquirer dictates the depth of the data provided*
Overall Functions of NMIC

• Provision of information in response to enquiries from healthcare professionals in primary and secondary care on all aspects of therapeutic use of medicines
• Provision of regular bulletins/newsletters to healthcare professionals
• Educational Role
Unplanned pregnancies may be associated with risks including increased incidence of poor prenatal care, preterm delivery and low birth weight. Correct and consistent use of effective contraception greatly reduces the likelihood of unplanned pregnancy. The choice of contraceptive method depends on the effectiveness of the method and the individual circumstances and preferences of the user. Women receiving emergency contraception should be given advice on appropriate regular contraception for the future.

INTRODUCTION

It is estimated that 40% of pregnancies that occur globally are unplanned. In Ireland the term “crisis pregnancy” refers to pregnancies that are unintended and unplanned and that represent a personal trauma for the woman or couple involved; a study from 2010 found that 35% of Irish women surveyed had experienced a crisis pregnancy. In addition to increased maternal mortality, unplanned pregnancy may also be associated with risks including increased incidence of poor prenatal care, preterm delivery and low birth weight. These risks are associated in particular with 1) pregnancies occurring in those aged <18 years and >34 years, 2) high parities, 3) short pregnancy intervals and 4) those that result in unsafe abortion. An Irish study found that women whose first pregnancy was unplanned were at increased risk of subsequent unplanned pregnancies. Over the last 50 years contraception has been part of clinical practice globally. It is estimated that each year family planning programmes prevent 187
Publications from NMIC

- Bulletins (6 per year)
- Newsletters (monthly)

Circulated to GPs/pharmacists via the GMS postal service / NMIC postal list / email / available on the NMIC webpage at [www.nmic.ie](http://www.nmic.ie)

- Audited by way of surveys to our readers

You are welcome to sign up!
Bulletins

Systematic review of particular therapeutic topic / review of most commonly asked questions in a specific area

Topics

• recent advances in knowledge or management of disease
• frequently asked topic (NMIC database) or
• changes in safety of medications

[editorial committee / external experts]
“Therapeutics Today”
Newsletter

Short summaries of recent articles on therapeutics

All major journals reviewed each week for items of relevance to general practice

Also, items that arise from queries are also included e.g. stock shortages / withdrawal of medicines (and possible substitution)

Safety alerts included (and updates given in consecutive newsletters as appropriate)
Overall Functions of NMIC

1. Provision of information in response to queries from healthcare professionals in primary and secondary care on all aspects of therapeutic use of medicines.

2. Provision of regular bulletins/newsletters to healthcare professionals (distributed via GMS postal system or via e-mail).

3. Educational role.
Educational role

- Lectures on prescribing issues to medical and pharmacy undergraduates (TCD, UCD) and postgraduate students
- Prescribing workshops to Basic Specialist Training physicians for the RCPI
- Workshops with GP trainees for the ICGP
- CPD meetings with GPs
- Involved in quality assurance of CPD modules for pharmacists

We are delighted to work with all HCPs!
In conclusion

• NMIC is here to help you by providing information on medicines in a proactive and reactive way.
Third National Medicines Forum

Dr. Tamasine Grimes

April 30th 2015
Medicines Reconciliation: Maintaining safety through transitions of care

Tamasine Grimes, PhD, MPSI
Associate Professor in Practice of Pharmacy
Trinity College Dublin and Tallaght Hospital

tagrimes@tcd.ie
@tagrimes
Overview

- Medication-related vulnerabilities at care transitions.
- The evidence-base.
- Policy context.
- Advancing practice in Ireland.
Medication safety in Ireland

26% of Irish people aged 50+ use 5+ medicines daily.
The Irish Longitudinal Study on Ageing, 2013 (TILDA).

> 8% of all emergency hospital admissions are drug-related.

8% of incidents reported to Clinical Indemnity Scheme are drug-related.

6% of acute inpatient discharges have a potentially severe drug error
Effective communication

Transfer of information

Change of responsibility

Change of accountability
Pre-admission medication list (PAML) → Inpatient prescribing → Discharge prescribing → Community prescribing & patient use

Discharge Reconcile


Association between hospitalisation and medication use?

Overnight hospital stay linked to potentially *unintentional long-term discontinuation* of medication. Discontinuation of statins and antiplatelets/anticoagulants rendered patients up to 11% more likely to experience **death, ED visit or emergency hospitalisation** than those whose medication continued.


Of 124,051 older adults hospitalized for Acute Myocardial Infarction, 9,607 (7.7%) were outpatient **Potentially Inappropriate Medicine** (PIM) users at admission, which increased to 8.6% at discharge (P < .001).

Association between hospitalisation and medication use?

Admitting hospital,
Length of stay,
Discharge diagnosis,
Discharge medications.

Long-term (pre-admission) medication

Healthlink discharge notification

Long-term (pre-discharge) medication

Anonymised clinical details (age, GMS status etc)

Socrates Local Clinical Environment

IPCRN generated report
Medication Reconciliation – some building blocks.

- Health Identifiers Act 2014
- HIQA Standards to support eHealth, GP referral, Discharge summary
- Professional Guidance/ Standards on Medicines Management
- HSE Integrated Care Guidance 2014, National Care Programmes
- HIQA Guidance on Performing MedRec 2014

Expanding evidence-base
What does the evidence tell us regarding strategies to improve medication safety at care transfer?
Interventions for improving medication reconciliation across transitions of care (Protocol)

Redmond P, Grimes TC, McDonnell R, Boland F, Hughes C, Fahey T

This is a reprint of a Cochrane protocol, prepared and maintained by The Cochrane Collaboration and published in The Cochrane Library 2013, Issue 10

http://www.thecochranelibrary.com
Key findings: 17 of 17 studies showed reduction in discrepancies; 5 of 6 showed reduction in potential ADEs; 2 of 2 showed reduced ADEs; mixed findings regarding post hospital healthcare utilisation (2 of 8). Key aspects of successful interventions included intensive pharmacy staff involvement and targeting the intervention to a high risk patient population.

Key findings: Pharmacists play a major role in most successful interventions. Medication reconciliation alone probably does not reduce post-discharge hospital utilization but may do so when bundled with interventions aimed at improving care transitions.

**Key finding:** Pharmacist-led medication reconciliation was the only strategy (to prevent adverse drug events) with adequate effectiveness data, based on one randomised trial and several non-randomised controlled trials. Pharmacist-led medication reconciliation dominated over a strategy of no reconciliation.

Components of successful interventions.

Collaborative practice – multi-disciplinary.

Complex interventions involving:

- medication reconciliation, medication optimisation,
- patient/carer education & counselling, follow-up,
- transmission of information.

Principles of good practice in medication reconciliation

Guidance for providers

- Medication safety involves giving the right person the right medication in the right dose at the right time and by the correct route.
- The Authority has produced guidance to aid service providers in achieving this.
- Medication reconciliation (MR) aims to provide service users with the correct medications at all points of transfer within and between health and social care services.

Medication Reconciliation PROCESS

- Takes place when a patient or service user is admitted to a service, is moved or transferred to a different level of care within that service, and when discharged from the service.

Additional practical guidance is available from the HSE on the medication reconciliation process as part of the wider discharge and transfer process from hospital.

Support services

- They participated in a medication reconciliation quality improvement project pilot.
- The learning points have been grouped around three areas of practice: organisation/structure, communication and documentation.

Process

1. Collecting
2. Checking
3. Communicating

Checklist

- Patient demographics and characteristics
- Record of communication
- Pages from medication record to photocopy, number and send with patient
- Other information

Additional practical guidance is available from the HSE on the medication reconciliation process as part of the wider discharge and transfer process from hospital.

Institute for Healthcare Improvement (IHI) & HIQA provide free of charge education to front line staff in quality improvement science.

In 2013 staff from 4 acute hospitals & 6 care of the elderly providers undertook the IHI Open School for Healthcare Professionals Programme.

### Retroactive Medication Reconciliation Process

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary medication history used to build admission orders.</td>
<td>Admission medication orders.</td>
<td>Best possible preadmission medication list (BPML) as early as possible.</td>
<td>Compare BPML with admission medication orders and resolve any differences.</td>
</tr>
</tbody>
</table>

### Proactive Medication Reconciliation Process

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPML is used to Build admission medication orders.</td>
<td>Admission medication orders.</td>
<td>Verify every medication has been assessed by prescriber and pharmacist.</td>
</tr>
</tbody>
</table>

Health Service Executive 2014. Integrated Care Guidance: A practical guide to discharge and transfer from hospital.
Collaborative pharmaceutical care in an Irish hospital: uncontrolled before-after study

Tamasine C Grimes,1,2 Evelyn Deasy,1,2 Ann Allen,1 John O’Byrne,1 Tim Delaney,1 John Barragry,3 Niall Breslin,3 Eddie Moloney,3 Catherine Wall3

ABSTRACT

Background  We investigated the benefits of the Collaborative Pharmaceutical Care in Tallaght Hospital (PACT) service versus standard ward-based clinical pharmacy in adult inpatients receiving acute medical care, particularly on prevalence of medication error and quality of prescribing.

Methods  Uncontrolled before-after study, undertaken in consecutive adult medical inpatients admitted and discharged alive, using at least three medications. Standard care involved

BACKGROUND AND INTRODUCTION

Periods of patient care that involve a transfer across organisations or transfer between professionals are more vulnerable with regard to medication safety than other periods.1–4 Medication error is more prevalent at these junctures and may result in harm: a type of adverse drug event (ADE). Medication reconciliation (hereon referred to as MedRec) is a process advocated to prevent harm consequent to reconciliation error,5–9 and in

Collaborative Pharmaceutical Care at Tallaght Hospital
My Medicines is a list of all the medicines and supplements you take and some of their details.

Please fill in the My Medicines information inside this leaflet.

This is your record of your medicines. Please keep this document safe and bring it with you when coming to Tallaght Hospital or attending any healthcare appointment. If you become ill, you or a family member can bring this record to hospital.

We also ask that you bring all of your medicines, in their original boxes and containers if you have them, with you when coming to the hospital.

Your medicines list will help hospital staff treat you safely.

IMPORTANT
To fill out My Medicines you need all your medicines in front of you including prescribed, non-prescribed and over the counter medicines.
If you don’t know what medicines you take or you need help filling out My Medicines ask your pharmacist, doctor, friend or relative to help you.

www.tallaghthospital.ie

working together to improve safety

Trinity College Dublin, The University of Dublin
MedRec within a medical team-based model where clinical pharmacists attend the post-take ward round

Can we prioritise/target patients for pharmaceutical care?
From evidence to clinical practice

- Number of medicines used
- Morbidity burden
- Renal impairment
- High risk drug
- Age
- Gender

Some observations, some opportunities

- Skill mix and task allocation,
- Make the process lean,
- Allow all practitioners to practice at the top of license,
- Collaborate,
- Intelligently use intelligence.
Acknowledgements

Academic and practice colleagues

Ann Allen, Vanesha Bhagwan, John Barragry, Kathleen Bennett, Fiona Boland, Niall Breslin, Sharon Byrne, Evelyn Deasy, Tim Delaney, Tom Fahey, Michelle Fitzsimons, Mairead Galvin, Jennifer Hayde, Carmel Hughes, Marie-Claire Jago-Byrne, Ciara Kirke, Gráinne Kirwan, Ronan McDonnell, Ciara McManamly, Eddie Moloney, John O’Byrne, Aisling O’Leary, Patrick Redmond, Cathal Walsh, Catherine Wall.

... And many more
Discussion & question time ...
Medicines Reconciliation: Maintaining safety through transitions of care

Tamasine Grimes, PhD, MPSI
Associate Professor in Practice of Pharmacy
Trinity College Dublin and Tallaght Hospital

tagrimes@tcd.ie
@tagrimes
Third National Medicines Forum

Olive O’Connor

April 30th 2015
Managing a chronic illness can cause immense stress and risks to both patients and carers. Can you imagine how hard it might be to manage more than one?

The MediStori is like a Filofax, but for health.
Is that...Paper???

In Today’s World?

That Will Never Work!

APPS ARE THE ONLY WAY!
Really? Are you sure?

Do all public hospital waiting rooms have Wi-Fi?
How many “clicks” does it take to write down a note?
What happens when computers break down?
Does paper rely on batteries or passwords?
How many people are taking notes with pen and paper today?

Is technology the cure for everyone & everything?

Is it the right thing for me?
I am Olive. And I am the Patient.
My Problem...

When did I give right medication?

So hard to get diagnosed!

Trying to remember appointments!

Communication Breakdown!

Everybody’s Problem...
I wish they would take their medications as prescribed.

I wish I knew why I was taking this medication.

The Water Tablet Case
The Inhaler Case
There is an urgent need for a universal, unified approach.
Does the HCP have to fill it in?
No. Unless they want to.

Is there not already PHR’s?
Yes...too many, all different.

Why not an app?
We asked – they told us.

So will there be technology?
Yes.

The Patient is the Only Link.

Outpatients & Discharge
Reassure & Refer (Empower)

Charities & Organisations
Rethink & Retrain (Self Management)

GP, PCCC & Pharmacists
Reinforce & Relate (Engage)

Emergency/Out of Hours
Recall & Reiterate (Communication)

Who Needs It?
Focus on the task in hand...

**Multiple Illnesses!**

- Multiple Symptoms
- Multiple Practitioners
- Multiple Medications

**Multiple-Minding!**

- Elderly Parent
- Children
- Working Fulltime
Who first???

*MediStori Recommended through Paediatric Out-Patient Clinics Initially And Through Charities and Organisations*

**Why Paediatrics?**

- Children’s medications are not pills
- Patient can’t speak for themselves
- Parent juggling with family, work, commitments
- Parents are good self managers...
- Parents do help nurses by caring for child

**Why in OPD Clinics?**

- Patient time waiting – average 1 hour – can be used more effectively
- Specialists can give more accurate information of disease
- Medical teams are usually present/nearby at these clinics
- Patient file is to hand for reiteration
- Diagnosis / referrals happen here
- Leaflet for Charity Given to Family
Collaborative, Comparative Study...
Research Compiled & Completed by NUIG – Dr Padraig Mac Neela (Psychologist)

Primary Objectives
• Make Changes Based on Patient Needs
• Who & Where is it Best to Recommend it to Patients

Secondary Objectives
• Medication management
• Join the acute’s themselves and primary care
• Behaviour & culture changes

Cost Savings...
## Business Case for the MediStori: Case Study

<table>
<thead>
<tr>
<th>Per Patient</th>
<th>Per Annum</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hospital Bed x 1 night</strong></td>
<td>€800.00</td>
<td>A hospital bed costs €800 per night – it is proven that if patients are part of the decision making process and are trained in self-management they become more reassured, educated and informed &amp; there is a high chance that they will not be readmitted or kept in as long as a patient who is not.</td>
</tr>
<tr>
<td><strong>Medication Compliance</strong></td>
<td>€300.00</td>
<td>If a patient has a better understanding of their medications and has a simple tool-kit to help them keep track of when they took them, there is a major chance of increasing medication adherence and compliance. This has a huge cost saving as it will stop re-ordering of drugs that are not needed; it will help reduce readmissions to hospitals due to medication related illnesses and it can even help cure/treat the issue and prevent visits to the GP.</td>
</tr>
<tr>
<td><strong>A&amp;E Re-Admission</strong></td>
<td>€200.00</td>
<td>There is significant evidence of people being admitted to hospital due because they are not reassured about their illness, treatment or diagnosis. There is also a high increase in admissions to A&amp;E at weekends and afterhours and evidence has shown this can be because after hour GP’s have no history on patients presenting to them and they can feel vulnerable and/or not confident enough to treat/diagnose a patient as they do not have enough information on the patient to make an accurate decision.</td>
</tr>
<tr>
<td><strong>Inappropriate Diagnostics</strong></td>
<td>€300.00</td>
<td>When health professionals are unsure as to whether the patient has had appropriate/previous tests done, sometimes they re-test them &quot;to be on the safe side&quot;. This has a huge burden of cost, risk and time on both stakeholders. This can be effectively reduced if a patient is able to tell a consultant when and where they last had medical investigations done and this will save time and money on needless retesting.</td>
</tr>
<tr>
<td><strong>Phone Calls/No Link</strong></td>
<td>€100.00</td>
<td>As patients end up in A&amp;E / being admitted the nurse needs a full up to date list of prescription or the patient. This usually ends up with a phone call (or 3!) to a GP or pharmacy. If the patient has this information to hand they can reduce this wastage of time (costs of calls) etc. for both the nurse and the GP/pharmacy and can have their medications written up on time for themselves.</td>
</tr>
</tbody>
</table>
Collaboration is a must for the MediStori...

- Dr Philip Crowley – National Director Quality Improvement & Patient Safety
- Quality Improvement team – Greg Price, Director of Advocacy
- RCPI – Dr John Fitzsimons & Dr Peter Lachman
- Mayo General Hospital – Chief Pharmacist Blanaid O’Connell
- June Boulger – National Lead Patient & Public Involvement in Acutes
- Tim Delaney – Zero Harm Initiative
- Temple Street Hospital – Grainne Dowdall, Child Health Information Co-ordinator
- Dr. Peter Sloane –GP WHO GAMA Project –Clinical Programmes and Strategy –
- ICGP - Speaking at the Master Classes (Dr Margaret O’Riordan)
- INMO – Claire Mahon & David Hughes
- Dr. Helen Flint –National Lead Medicines Management Programme
- Prof. Alf Nicolson –Clinical Lead Paediatric Programme
- Collaboratively working with the Irish Patients Association, Patient Focus, Irish Pharmacy Union, HPRA, Irish Carers Association plus all/any other organisations as need arises...

Partnerships are the key to success...
Patient + Professional = Partnership
Policy + Practicality = Positive Outcome

Benefits For Patient, Carer & Health Care Professional

Self-
-Management = Medication Adherence

Communication = Less Errors

Empowerment = More Confidence

Having Records of Tests = Less Re-
-Testing

Family History = Accurate Diagnosis

Community Care = Less Re-
-Admissions

Engagement = More Reassurance

Informed Decisions = Safer Standards

We are all here to either get better,
or to help someone get better.
Collaboration is key.

www.medistori.com

"The day of the passive patient is over….as part of your caregiving team, you need to give your caregivers a frank and accurate account of your own health history and condition….”

(Toby Cosgrove, CEO Cleveland Clinic, 2014)

What’s Your MediStori?

Thank You!

www.medistori.com
Third National Medicines Forum

Dr. Brendan O’Shea

April 30th 2015
Medicines Management
The view from General Practice

3rd National Medicines Forum

Dr Brendan O’ Shea  Dr Gearoid O’ Connor  Dr Diarmuid O’ Keefe
TCD Department of Public Health and Primary Care  and  TCD HSE GP Training Scheme
Medicines Management

Views from General Practice
at home and abroad

3rd National Medicines Forum

Dr Brendan O’ Shea
TCD Department of Public Health and Primary Care  and  Dr Diarmuid O Keefe
TCD HSE GP Training Scheme

Dr Gearoid O Connor
Background
General Practice and Prescribing

- Prior to 1995: Chaotic / Unknown / Unrecognised
- 1995: National Drug Savings Scheme
- .......Back to Chaos by mid 2000’s
- 2000: Electronic Medical Records in GP (GPIT)
- 2012: iPCRN
- 2013: Preferred Drugs Scheme

2020: ?
St John’s Newfoundland 1984

• Medical Students in their 4th & 5th Years

Junior Interns

6-8 Patients
All orders (Rx & Ix) co signed by their Intern
Excellent active learning
Smother transition into full role
Wyeth Medica Newbridge 1991

- Standard Operating Procedures
- GMP (Good Manufacturing Process)
- Condition of the floor.....
- Comparisons with local A/E

- What about ‘GCP?’
2007 ‘GP drugs savings scheme fails to hit right target, despite expectations’

‘The amount of drugs savings generated fell from €3.5m in 2000 to just €670,000 in 2005.

The Comptroller's report also showed that a programme which allowed GPs to draw down €105.2m from the health service to improve their practices has yet to be evaluated.

GPs were given budget targets annually to encourage them to be more cost effective in their prescribing, mostly by substituting branded drugs with cheaper generic versions which were proved as just as effective.

The doctors were able to retain the savings they made and invest the money in improving their surgeries and services to patients.

The Comptroller found as many as 27pc of GPs went over their budget limits.

It was also found only 5pc of the 1,395 GPs in the scheme managed to achieve savings every year.’

- Population 27,000
- 18 GPs, 3 Specialists, 2 Hospitals, 4 NCHDs
- Daily Routine
- Prescribing......

‘Hi Sheila, I need a permission for Clarithromycin....’
2000 GPIT

- Collaboration between ICGP/HSE
- Process – Well integrated Expert Group
- Standards for licenced clinical software (6-8)
- Common functions, architecture, disease coding

2015 Most GP Practices using EMRs
2013 iPCRN

• Clinical database search engine
• C 800 GPs utilising
• Realtime automated data collection
• Your own Vs Peer Performance
• Self Selected areas – Tailored Audit / Research
2015

The Patients’ Perspective

A Survey of Chronic Disease Management in Ireland

Whiston L, Casey E, Seraukina T, Darker C, O’ Shea B.

517/600 – 86% response rate
CDM Study

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would you be happy for your doctor to prescribe a generic version of your</td>
<td>442 (86.8%)</td>
<td>67 (13.2%)</td>
</tr>
<tr>
<td>medicine, if the Irish Medicines Board guaranteed it? (N=509; 98.4%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Patients’ Perspective
A Survey of Chronic Disease Management in Ireland
Whiston L, Casey E, Seraukina T, Darker C, O’ Shea B.
517/600 – 86% response rate
Generic Switching

PRAGMATIC STUDY IN 2 PRACTICES
TCD HSE GP TRAINING SCHEME
Perceptions and acceptability of the Preferred Drugs Scheme and generic switching from patients’ perspectives.

Dr. Gearoid O Connor, Dr. Diarmuid O Keeffe, Dr. Catherine Darker, Dr. Brendan O’ Shea

TCD HSE GP Training Scheme
Background

• April 2013 ‘Preferred Drugs Scheme’ launched
  Single “preferred” drug within a class
  Maximise safe, effective and cost effective prescribing

• First phase Statins & PPI’s
  If 50% of PPI’s were Lansoprazole, HSE savings 7.5 million/year

• New prescriptions

• Long term therapy and switching
Aims and Methods

Investigate acceptability of switching patients on non-lansoprazole PPIs to lansoprazole

Convenience sample / 2 Teaching Practices / Ethics Approval obtained

• Identified when collecting repeat prescriptions
• Information sheet regarding the study
• Complete preliminary questionnaire
• If agreeable, PPI changed to lansoprazole
• Repeat phone survey at 6 weeks
Results (Preliminary)
n = 61

Happy to switch?

- Yes (80%)
- No (20%)
It is important to reduce the cost of medications as far as safely possible.
If a medicine is licensed, it is safe?

- Strongly disagree (3%)
- Disagree (2%)
- No opinion (15%)
- Agree (30%)
- Strongly agree (54%)

n=61
If my GP recommends a change for cost reasons, it is safe?

- Strongly disagree (8%)
- Disagree (10%)
- No opinion (20%)
- Agree (28%)
- Strongly agree (39%)

n=61
If my GP recommends a switch for cost reasons, it will be effective?

- Strongly disagree (7%)
- Disagree (11%)
- No opinion (20%)
- Agree (31%)
- Strongly agree (34%)

n = 61
If my GP recommends a switch for cost reasons, there will be no new side effects?
Look back phone survey - results at 6 weeks....

Continued on new PPI?

- Yes (80%)
- No (20%)
Results at 6 weeks

New symptoms?

- Yes (24%)
- No (76%)
Results at 6 weeks

Reduced charge

- Yes (29%)
- No (71%)
Results at 6 weeks

Current feelings

- Angry (7%)
- Anxious (13%)
- Neutral (7%)
- Pleased (13%)
- Happy 61%
Discussion/Conclusions

• More resistance to switch than anticipated
• Anxiety / apprehension to switching for cost reasons
• Proportion of patients unhappy on switching
• Other ‘preferred drugs’ would be more difficult to switch due to higher risk / complexity involved (i.e.; SSRI, ACE inhibitor)

These matters require to be addressed.....
References

- [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3262749/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3262749/)
- [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2739237/](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2739237/)
- [http://www.hse.ie/yourmedicines](http://www.hse.ie/yourmedicines)
Conclusions

What is the smart thing to do right now?

Where do we want to be in 2020?
2020 Vision

- GPIT to CIT – Jumpstart IT in Secondary Care
- Don’t be waiting for the dull boys and girls......
- Pragmatic studies
- Information – ‘Whole System Ownership’
- Smarthealthcare.ie
- Extend Preferred Drugs Scheme to n = 100

Savings accounted and re directed to Primary Care CDM
The Current Situation

Previously....

Today....

Tomorrow ?
Third National Medicines Forum

April 30th 2015