



Feidhmeannacht na Seirbhíse Sláinte  
Health Service Executive



# Composite Report on HSE Pharmacy

by

Joint HSE/IMPACT Steering Group 2017

**Composite Report on HSE Pharmacy**  
by  
**Joint HSE/IMPACT Steering Group 2017**

The following Report and Sub-Group Reports were agreed on August 15th 2017 at a meeting of the steering group in the Boardroom, Acute Hospital Division, Dargan Building, Military Rd, Dublin 8.

**Final Report reviewing HSE Hospital Pharmacy Structures in the context of the 2011 Report on the Review of Hospital Pharmacy (Joint HSE/IMPACT Working Group).**

**Subgroup reports :**

- (1)** Cost Containment
- (2)** Education & Training
- (3)** Advanced Pharmacist Specialist Roles
- (4)** Recruitment & Retention

# OVERVIEW

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## HSE Pharmacy – Joint HSE/IMPACT Working Group Interim Report

*Reviewing HSE Hospital Pharmacy Structures in the context of the 2011 Report on the Review of Hospital Pharmacy.*

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## 1. Background

Arising from a recommendation of the Implementation of Pharmacy Review Steering Group a HSE/Hospital Pharmacist working group was established to undertake a mapping exercise in relation to the application of the 2011 Report on the Review of Hospital Pharmacy. During the course of this exercise the working group has remained cognisant of the Pharmacy Act 2007 which confers responsibility on the Superintendent Pharmacist to ensure that all Pharmacists are competent and fit to perform the functions assigned to them. This Act informed the 2011 Report on the Review of Hospital Pharmacy which set the context of this mapping exercise.

## 2. Scope

A mapping exercise of existing hospital pharmacy career structures recommended in the 2011 Report on the Review of Hospital Pharmacy. It is recognised a number of issues outside of this mapping exercise were identified which need to be addressed outside of this report. A number of subgroups will be formed to discuss these in more detail.

## 3. Out of Scope

The following areas were deemed out of scope and not addressed during this mapping exercise:

- Infrastructure;
- Future service requirements;
- Costing;
- Students, Technicians and other pharmacy staff;
- Education and training and;
- Community Health Organisations (CHOs).

## 4. Membership of the Pharmacy IR Working Group

The following stakeholders were identified as part of this working group:

- |   |
|---|
| • Eileen Burke, General Manager, National Drugs Management Programme,                   |
| • Robert Kidd, General Manager, Operations, Acute Hospitals Division (Chair)            |
| • Tim Delaney, Head of Pharmacy, Tallaght Hospital                                      |
| • Brian Rattigan, Chief Pharmacist, Sligo General Hospital                              |
| • Edna Hoare, Senior Executive Industrial Relations/Employee Relations                  |
| • Deirdre Lynch, Chief Pharmacist, Cork University Hospital                             |
| • Elaine Conyard, Chief Pharmacist, Our Lady of Lourdes Hospital, Drogheda              |
| • Joan Peppard, Chief Pharmacist, Dublin Midlands Hospital Group, Tullamore             |
| • Andrew Barber, ex-Chief Pharmacist, University Hospital Galway                        |
| • Sharon Dwyer, General Manager, National Clinical Programmes, Acute Hospitals Division |
| • Noreen Spillane, Chief Operations Officer, UL Hospitals Group                         |
| • Gerry O'Dwyer, Group CEO, South/South West Hospital Group                             |
| • Kieran Monks, Project Manager, National Drugs Management Programme                    |

## 5. Process



- i. A survey was developed by the HSE to gather information on the hospital pharmacy ‘as is’ staffing levels based on HSE HR pharmacy data. The survey was distributed to all acute hospitals for completion. An outline of the survey is provided in Appendix I - Acute Hospital Pharmacy Mapping Survey.
- ii. This information was circulated through the Hospital Group CEOs to the head pharmacist in each of the individual acute hospitals for validation.
- iii. The working group then collectively reviewed the hospital validated “as is” hospital pharmacy staffing data to initiate the mapping process.
- iv. The pharmacist members of the working group met separately to map the validated “as is” pharmacy staffing data and the management grades to the hospital pharmacy career structure defined in the 2011 Report on the Review of Hospital Pharmacy <sup>1</sup>.
- v. Once this process was complete a further working group meeting was held to review the proposal regarding staffing structures identified and put forward by the pharmacy working group members.
- vi. An interim report was generated on the mapping exercise and circulated to the working group to collectively review.

## 6. Acute Hospital Pharmacy Staffing Review

### i. Current National Acute Hospital Pharmacy Staffing levels

At the end of January 2017 there were 434 WTE Acute Hospital Pharmacists (excluding Pharmacy Technicians, porters, supplies and clerical staff). The figure of 434 WTE was obtained from HSE HR data and validated via a survey conducted by hospital pharmacists at the end of January 2017. Details by grade are outlined in *Table 1* below:

<sup>2</sup> Grade <sup>3</sup>	Headcount	WTE
Pharmacist, Chief I	24	22.84
Pharmacist, Chief II	77	72.61
Pharmacist, Senior	269	234.64
Pharmacist	111	104.22
<b>Total</b>	<b>481</b>	<b>434.31</b>

Table 1: Overview of National Acute Hospital Pharmacy Staff

<sup>1</sup> Available at: [www.hpai.ie/uploads/Review2012.pdf](http://www.hpai.ie/uploads/Review2012.pdf)

<sup>2</sup> The grade titles in this table 1 are currently operating in the acute hospital setting in line with DoH approved grades/ salary scales).

<sup>3</sup> These figures do not include the work being performed by Pharmacy Technicians Senior and Technicians (303.37 WTE) as it was outside the scope of the mapping exercise. For the same reason, it also doesn’t capture the 29 pharmacy interns in the system of which 14 are paid. The yearly ‘internship model’ programme is due to be completed in 2019.

## ii. Mapping Exercise Findings

A mapping exercise was conducted against the pharmacy structures identified in the 2011 Report. Findings of this mapping exercise are outlined in *Table 2*<sup>4</sup> below. This table was generated based on an expectation of the pharmacy working group members that these new grades would attract an additional remuneration in line with the additional roles and specialisation

Roles	Findings <sup>5</sup>
<b>Directors of Pharmacy and Directors of Medicine Management (Chief I)</b>	29
<b>Deputy Directors of Pharmacy and Directors of Medicine Management (Chief II)</b>	29
<b>Pharmacy Service Managers</b>	60
<b>Clinical Pharmacy Specialist*</b>	183
<b>Senior Pharmacist</b>	120
<b>Pharmacist</b>	60
<b>Total</b>	<b>481<sup>6</sup></b>

Table 2: Pharmacy Career Structure applying the 2011 Report on the Review of Hospital Pharmacy

### a. Directors of Pharmacy and Directors of Medicine Management

The mapping exercise identified twenty nine Directors of Pharmacy and Directors of Medicine Management nationally within the acute hospital setting. A formal separate role currently exists in Tallaght and Mater Hospitals for Higher Dept of Health approved grades. Where Chief Pharmacist posts exist in Model 2 Hospitals with additional responsibilities for long term residential care facilities and mental health facilities, there is scope for these roles to be strengthened to expand the pharmaceutical coverage in a variety of associated care areas beyond the acute hospital setting. In the event that this is the case, consideration should be given to assigning these roles at Director Level.

### b. Deputy Directors of Hospital Pharmacy and Deputy Directors of Medicines Management

The 2011 Report on the Review of Hospital Pharmacy recommended two Deputy Directors per site plus a third where appropriate. This is a new grade and responsibility that doesn't exist in the current HSE pharmacy grading structure. The working group identified one Deputy Director of Pharmacy and Deputy Director of Medicines Management for all sites with a directorship based on the size, complexity of service and level of financial accountability. There was also scope for a hospital to put forward a business case for an additional Deputy Director where deemed justified in cost effectiveness terms.

Model 1 and 2 hospitals could be considered in the 'hub and spoke' type format, therefore there is scope for service managers in these sites to report to a Deputy Director in a large neighbouring general hospital. In this context the Pharmacy Service Manager would be legally required to perform the role of Supervising Pharmacist where the Pharmacy Department in the smaller hospital is registered with the PSI. From an accountability perspective such reporting relationships between two sites would need to be supported through a formal Service Level Agreement between the hospitals at CEO level. This reporting relationship was considered possible between for example Portlincula University Hospital and Roscommon University Hospital.

There is potential for the Directors of Pharmacy and Directors of Medicine Management role to be extended across sites within the hospital group structure. This is only possible in the twinning of a large acute hospital with Model 1 or 2 hospitals.

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<sup>5</sup> This figure does not include headcount figures from the Children's Hospital Group



### ***c. Pharmacy Service Managers***

Sixty Pharmacy Service Managers were proposed for all the pharmacy service manager areas:

1. Dispensary;
2. Aseptic Compounding Units;
3. Clinical pharmacy and;
4. External Hospitals.

These posts are similar grading but reflect different areas of practice. In some hospitals such as larger hospitals the Chief II Grade is currently performing these Pharmacy Service Manager roles.

These roles would manage the:

1. Respective service;
2. Pharmacist Staff;
3. Budget and;
4. Skill mix ( Senior Pharmacy Technicians , Pharmacy Technicians and other assigned staff)

### ***d. Clinical Pharmacy Specialist***

It has been identified from the mapping exercise that there are potentially 183 individuals eligible for the proposed Clinical Pharmacy Specialist<sup>7</sup> posts. The definitive numbers eligible could not be determined in the absence of local knowledge of hospital's specific requirements in this area. An agreed list of the clinical pharmacy specialist areas and associated criteria will need to be discussed and agreed. Although the vast majority of Clinical Pharmacy Specialists work would be in clinical area roles, this post can encompass other areas not directly interfacing with patients such as Aseptic Compounding and Medicines Information. The working group suggests that a revised title be considered to reflect specialisation in non-patient interfacing roles. A specific competency framework for the training and evaluation of the Clinical Pharmacy Specialist roles in line with best practice will be discussed as part of a separate exercise.

### ***e. Advisory Role to Group CEO***

The strategic importance of the advisory role and co-operation at Directors of Pharmacy and Directors of Medicine Management level is identified in the 2011 Report on the Review of Hospital Pharmacy which also recognises the importance for the HSE and patient safety of integrated Pharmacy Services across Acute, Community and Mental Health Hospitals.

## **7. Issues Identified for Further Consideration**

### **i. Hospital Pharmacy Structure "Specialist Areas" Analysis**

- a. Detail required around identifying the core Clinical Pharmacy Specialist grades pertinent to the hospital's activity and profile.
- b. Clinical Pharmacy Specialist roles need to be flexible to capture variations in local work practices.
- c. Potential cost saving initiatives through the sharing of resources across sites will be required. New Pharmacist management grades to identify and have the key role in managing process.

### **ii. Industrial Relations**

- a. Number of posts
- b. Pay scales
- c. Terms and conditions

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<sup>7</sup> Equate to the Clinical Specialist Pharmacist career structure in the 2011 Report on the Review of Hospital Pharmacy with the recognition of specialists roles.

### **iii. Recruitment & Retention**

- a. Hospital pharmacy placements need to be part of the student pharmacy training.
- b. Clear career pathways for the retention of highly skilled pharmacists.
- c. A mentoring programme to be provided around clinical pharmacy development.
- d. Liaise with the HSE NRS to identify evidence around the recruitment of particular Pharmacist posts and to identify specific recruitment issues for basic pharmacy grade posts.
- e. Regarding the process for filling of posts, agreement needs to be reached. The 2011 Report on the Review of Hospital Pharmacy identified that there should be different processes for the filling of posts arising from the 'as is' mapping exercise, and for the filling of any new posts.

### **iv. Communication Strategy**

- a. A formal communication plan to be developed to inform hospitals and pharmacists of the terms of the final agreement reached on the Pharmacy issues
- b. HSE management need to be informed of the results of this mapping process from budgetary and patient outcomes perspectives.
- c. All new grades at Hospital sites should share information and expertise within their group/CHO but not exclude cooperation and support with hospitals from other groups who would benefit.
- d. DoH/DPER to be informed of the results of this mapping process through a business case for the identified new grades as well as part of the estimates process.
- e. Community Health Organisations (CHO) representative in the IR Pharmacy Process to identify collaborative processes in areas such as medicine management reconciliation between the hospitals and community.

### **v. Governance Structure**

- a. A service level agreement (SLAs) between individual sites across groups where services are shared across hospital groups. Clear governance lines in particular around reporting relationships across sites.

### **vi. National Implementation, Verification and Evaluation Group**

- a. A national implementation and verification review group to be established to quantify and to oversee the implementation post final agreement

## **CONCLUSION**

This mapping exercise assessment of hospital pharmacy career structures identified the merit in further developing the 2011 Report on the Review of Hospital Pharmacy for implementation in the Acute Hospital sector. It is acknowledged that there are a number of areas that need to be addressed (as outlined above in Section 6 of this report 'Issues Identified for Further Consideration') to progress the implementation of this review of hospital pharmacy.

## Appendix I - Acute Hospital Pharmacy Mapping Survey

Grade	Directly employed staff			Agency		Medicines Optimisation		Variable Infrastructural Services							
	Grade Code	Direct employed WTE	Headcount as of end Jan 16	Total Vacant WTE Jan 16 (only list vacant posts since 2016)	Vacant WTE On-hold Jan 16	Agency (Total hours of agency used over the past 12 months)	Agency (Total cost of agency used over the past 12 months)	Main reasons for agency use	WTE assigned to Patient Facing: e.g. ward pharmacy, med reconciliation; med disch; prescribing; OPD/Pre-assess; Specialist Pharmacists; med admin/suppor t	WTE assigned to Org Assurance: e.g. Medicines Safety, Audit, Governance	WTE assigned to Supply Chain: e.g. Store Distribution and Procurement/Aseptic Production QC/Dispensing/Homecare	WTE assigned to Education and Training	WTE assigned to Advisory Services: Med Information/Formulary	WTE assigned to Research and Development	WTE assigned to services to external organisations: Community/Mental Health/Hospices/Prisons
Pharmacist, Chief I															
Pharmacist, Chief II															
Pharmacist, Senior															
Pharmacist															
Pharmaceutical Technician, Senior															
Pharmaceutical Technician															
Total															

## Appendix 2

### Definition of Acronyms

Acronyms	Definition
<b>CEO</b>	Chief Executive Officer
<b>CHO</b>	Community Health Organisation
<b>DoH</b>	Department of Health
<b>DPER</b>	Department of Public Expenditure and Reform
<b>HSE</b>	Health Service Executive
<b>HPAI</b>	Hospital Pharmacists Association of Ireland
<b>PSI</b>	Pharmaceutical Society of Ireland
<b>WTE</b>	Whole Time Equivalent

## Appendix 4 – Glossary of Terms

Term	Explanation
<b>Steering Group</b>	The overarching Group including high level HSE (HR & IR) and IMPACT (IR) experts with representatives from HSE higher management and HPAI officers.
<b>Working Group</b>	Arising from a recommendation of the Implementation of Pharmacy Review Steering Group a HSE/Hospital Pharmacist working group was established to undertake a mapping exercise in relation to the pharmacy career structures agreed in the 2011 Report on the Review of Hospital Pharmacy .
<b>Subgroups</b>	Subgroups are made up of individuals (nominated by both the HSE and Hospital Pharmacists) from the larger working group plus fellow professionals as required
<b>Directors of Pharmacy and Directors of Medicine Management</b>	Role with key responsibilities acknowledged in the role title. It is important to note that the 'Director of Pharmacy and Director of Medicine Management' accounts for 1WTE. The title places an emphasis on the dual responsibilities applicable to this role
<b>Deputy Directors of Pharmacy and Directors of Medicine Management</b>	Role with key responsibilities acknowledged in the role title. It is important to note that the 'Deputy Director of Pharmacy and Deputy Director of Medicine Management' accounts for 1WTE. The title however places an emphasis on the dual responsibilities applicable to this role
<b>Pharmacy Service Manager</b>	Manager accountable for a specific pillar of practice, Pharmacist staff, budget and skill mix i.e. Aseptic Compounding, Dispensary, Clinical Pharmacy, External Hospital(s) .
<b>Clinical Pharmacy Specialist</b>	Pharmacist who is highly competent and experienced in a specific area of practice. A different title has been proposed to accommodate practice in both patient interfacing i.e. clinical and non-patient interfacing roles e.g. Aseptic Compounding, Medicines Information, Education etc. The working title for this project was Advanced Pharmacy Specialist.
<b>PSI</b>	Pharmaceutical Society of Ireland
<b>CEO</b>	Chief Executive Officer
<b>CHO</b>	Community Health Organisation
<b>HSE</b>	Health Service Executive
<b>HPAI</b>	
<b>WTE</b>	Whole Time Equivalent

## Appendix 4 – Schedule of IR Pharmacy HSE/IMPACT Meetings

MEETING TYPE	DATE
<i>Working Group</i>	11/05/2017
<i>Working Group</i>	4/05/2017
<i>Steering Group</i>	24/04/2017
<i>Working Group</i>	11/04/2017
<i>Working Group</i>	30/03/2017
<i>Working Group</i>	15/03/2017
<i>Working Group</i>	13/02/2017
<i>Steering Group</i>	22/02/2017

# **HSE/HPAI Cost Containment Sub Group Report**

**July 2017**

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## 1 Terms of Reference

A cost containment group was convened following recommendations from the Joint HSE/Pharmacy (HPAI) working group. The terms of reference agreed by the sub group were to,

- a. Establish and quantify where possible current cost containment measures at national and local level. This should be broadly classified under the following headings:
  - Clinical
  - Procurement (the group may make suggestions / recommendations which are recognised to be beyond the scope of this subgroup but which will inform/be reviewed by the steering group)
  
- b. Identify future cost containment measures.

Some examples of areas which have achieved significant cost savings or having the potential to deliver cost containment within the hospital drugs sector are outlined below.

## 2 Aseptic Compounding

### 2.1 Oncology & Haematology

The National Cancer Strategy 2017 – 2026 states that approximately 33,000 people receive treatment with cancer drugs each year. This involves oral anti-cancer medicines largely taken at home and parenteral drugs administered in hospital, with all patients assessed, supported and followed through their treatment in specialised oncology or haematology day units.<sup>1</sup> The National Cancer Registry has predicted that the number of new patients receiving chemotherapy will increase by between 42% and 48% in the period 2010 to 2025.<sup>1,2</sup> The last ten years have already witnessed a huge increase in the complexity and volume of chemotherapy administered. The growth in both the incidence of cancer, and the prevalence of patients on active treatment with new drugs, is giving rise to a significant increase in the volume and complexity of medical oncology work.<sup>1</sup>

Systemic anticancer therapies (SACT) are currently provided at 25 adult & 1 paediatric\* public hospitals and hospital pharmacy services are an essential component in the delivery of cancer treatments to patients in these hospitals (Appendix 2).<sup>1</sup>

The new Cancer Strategy reiterates the recommendation made by the Evaluation Group of the 2006 Cancer Control Strategy in 2014 for the need to expand capacity and improve pharmacy facilities.<sup>1,3</sup> The Evaluation Group also highlighted that a shortage of pharmacists gave rise to patient safety concerns.<sup>3</sup>

The Strategy recommends that all patients receiving these complex medicines should have access at the outset to trained, specialist pharmacists, in a hospital setting, who can advise them on how to take their medication correctly, the implications for misuse of the medication and an awareness of possible side effects.<sup>1</sup>

Of the 25 adult hospitals delivering SACT there are only 16 hospitals with pharmacy aseptic compounding units (ACU). These units focus on oncology and haematology drugs but the demand for biological products in non-oncology/haematology indications to be compounded in these units is increasing.

In order to quantify the current aseptic compounding service the Hospital Pharmacist Association of Ireland (HPAI) sought and received the 2016 compounding statistics from 25 adult hospitals. This data applied to oncology and haematology only. The majority of the 16 adult hospitals with ACUs are also purchasing some oncology and haematology products compounded by commercial providers. There are 9 hospitals with no ACU who purchase all of their aseptically compounded SACT from commercial providers.

The detailed methodology for determining the average cost per item when compounded in a hospital pharmacy aseptic unit was explained. A separate exercise was conducted to calculate the average cost per item for hospitals obliged to purchase their requirements. The existing savings delivered in 2016 and future potential savings are outlined in table 1.

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\* The paediatric hospital with an ACU is Our Lady's Children's Hospital, Crumlin

**Table 1: Existing & Potential Savings by Hospital Pharmacy Aseptic Compounding Units.**

	Number of SACT doses compounded in 2016	Average cost per item (€)	Total Expenditure(€) 2016	Savings per item (€)	Total saving (€)	
<b>Public Hospital ACU (16 Hospitals))</b>	136,310	660	89,964,600	398	54,251,380	<b>Existing Savings</b>
<b>Public Hospital that outsource all or some doses to Commercial ACU* (23 Hospitals)</b>	45,450*	1,058	48,086,100	-	18,089,100*	<b>Potential Future Savings</b>
<b>Total Existing &amp; Potential Savings</b>					<b>72,340,480</b>	

*\*All doses purchased are used to calculate the potential savings that could be realised if compounded in hospital ACUs.*

*From the survey it was noted that 5-10% of the outsourced doses are for 5-FU infusors. In general these are not compounded in hospital pharmacy ACU as they are complex to compound. If these continue to be purchased commercially and are removed from the above calculations the average cost per item from a commercial ACU could increase to as much as €1,178, the saving per item to €518 and the total saving to €21,887,190.*

These figures do not include the following which either are or could deliver further cost savings,

- Biological monoclonal antibodies & other miscellaneous IV treatments which are also compounded in these units.
- An increase in the existing savings delivered through vial sharing if the outsourced doses are compounded by a hospital pharmacy ACU. In 2011 one ACU in Ireland reported annual savings of €343,580 through vial sharing.<sup>4</sup>
- Reduction in wasted doses if outsourced doses are compounded by an in-house ACU. A quality improvement study on chemotherapy waste in a hospital with no ACU reported that wasted doses accounted for 2.6% of their total oncology / haematology drug budget at the end of the study.<sup>5</sup> Anecdotally, hospitals with ACUs report 0.5% - 1% wastage.
- Realising the full potential savings from the IPHA-HSE agreement.<sup>6</sup> At present if a hospital outsources to a commercial ACU in the UK or Ireland the IPHA - HSE agreement rebate is not being realised for these commercially compounded doses.

Many of the compounding units purchase additional product from a commercial aseptic compounding unit as they are under-resourced for the amount of product required for treatment of patients. In order to understand the level of investment that would be required to maximise the efficiency of existing and potential new units an exploration into the costs of running an aseptic compounding unit was undertaken.

### 2.1.1 Running Cost of Units

One ACU has priced the running cost of that unit, including staff, as being 11% of current yearly drug cost compounded in that unit. However, attributing this cost is challenging, for example,

1. ACUs compound other non-oncology/haematology treatments with significant savings.
2. In order to participate in clinical trials the hospital must compound their parenteral (IV, SC) treatments in house. The commercial compounders are not licensed to do so. Participation in clinical trials contributes significant cost savings as the drugs are provided free of charge.

In addition the establishment of a new ACU will have associated costs,

3. Lower costs if existing building space can be vacated for the installation of the ACU and;
4. Higher costs if building has to be constructed with design and planning permission requirements.

A more detailed evaluation by a high level advisory group on the set up and running costs of an ACU would be useful as part of the planning process to deliver the increasing demand for SACT as outlined in the National Cancer Strategy 2017 – 2026.<sup>1</sup>

## 2.2 Clinical Trials

The National Cancer Control Programme (NCCP) was requested to furnish the savings on clinical trial drugs as returned by hospitals in their quarterly figures, but these savings were not made available for the timeframe of this report.

In accordance with Statutory Instrument No. 190/2004 - European Communities (Clinical Trials on Medicinal Products for Human Use) Regulations, 2004,<sup>7</sup> commercial compounding units are required to apply for a marketing authorisation to dispense clinical trial medicines while hospital pharmacies are exempt. As a consequence none of the commercial providers in

Ireland offer the compounding of clinical trial medicines. Therefore the availability of in-house compounding is a key aspect of making clinical trials available in Ireland.

There was acknowledgement from this group that early engagement with clinical pharmacists in relation to clinical trials in hospitals can provide significant efficiencies around safety and costing of clinical trials where often these costs have not been previously highlighted. This can be particularly important in the case of observation studies where the drug manufacturer may withdraw funding following the completion of study.

In the *Health & Economic Impacts of Cancer Trials in Ireland: Final Report for Cancer Trials Ireland* from May 2016, the economic consultants DKM attempt to evaluate the savings on medicines from participation in cancer trials.<sup>8</sup> The following are direct extracts:

- “Over the period July 2012 to December 2014 (2½ years), some €13.46 million in drugs costs savings have been generated for the Exchequer on Cancer Trials Ireland-sponsored trials. Annualised, this works out at €5.4 million per annum.”
- “Our analysis, based on data from the various hospital sites, directly and via Cancer Trials Ireland, indicates a value for drugs savings for 2015 of approximately €6.4 million.”
- “Hence it would appear to us to be reasonable to conclude conservatively that **savings to the HSE from cancer trial activity is approximately €6.5 million per annum**”

While the report does not distinguish between oral and intravenous/subcutaneous (IV/SC) drug routes the savings generated through the use of cancer trial drugs are not achievable without the preparation of parenteral medicines in hospital pharmacy ACUs and the dispensing of oral clinical trial drugs by hospital pharmacists.

**Note:** The group are mindful that this report was commissioned by Cancer Trials Ireland whose remit includes the promotion of cancer clinical trials in Ireland. It may be possible to obtain updated figures on the savings achieved once the data requested from NCCP become available.

### 3 Prescribing Guidance

One of the main areas that pharmacists will provide efficiencies both from a patient quality and safety perspective as well as monetary is through their ability to provide prescribing guidance and direction. The benefits of this have been clearly demonstrated in a number of areas to date.

#### 3.1 Ophthalmic injections

The number of patients requiring treatment with injections for Age Related Macular Degeneration and Macular Oedema has grown annually due to the introduction of new drugs to treat the condition and particularly since the introduction of the National Diabetic Screening Programme. One treatment hospital has reported a doubling in numbers from 2012 to 2015.

There are four main treatments available, three of which cost from approximately €600 to €900 per injection. In general patients require treatment for at least 6 months and sometimes longer. One of these four treatments is unlicensed (bevacizumab) and costs a fraction of the price of the licensed preparations, at ~€46 per injection and less if compounded in-house in hospital pharmacy ACU.

Hospital pharmacists have consistently advised that the use of bevacizumab is more cost effective and provided this guidance at local level thereby dramatically reducing the cost to the healthcare payer. In Sept 2011 the savings achieved in three hospitals in the first 5 months of 2011 were reported to the HSE Director of Finance.<sup>9</sup> The total annual savings from these hospitals was reported to be over €5m at a Joint Pharmacy Review meeting in 2012. This group are aware that additional work was completed by the HSE which identified that a significantly larger budget which could be up to €8m would be required were all patients on the unlicensed treatment to be switched to the licensed treatment.

Pharmacists have provided additional savings by compounding the injections in-house and by vial sharing. A preliminary sampling exercise identified that in 2016, pharmacies without ACUs in the sample purchased 6,612 injections of bevacizumab at a cost of €304,152. Availability of in-house ACUs could potentially prevent this additional cost.

#### 3.2 Drug Formulary

Many teaching hospitals in Ireland have introduced formularies advising on the safe and efficient use of drugs prescribed in hospitals. These formularies are produced by hospital

pharmacists. As well as limiting the number of drugs the introduction of newer drugs must go through a formal process and pharmacists act as gate keepers and advisors on these new treatments.

### 3.3 Prescribing Efficiencies

There is significant scope for additional efficiencies to be achieved through pharmacist led interventions such as generic switching (e.g. in HIV prescribing), biosimilar led initiatives and restricted prescribing for new drugs.

## 4 Provision of HIV & Hepatitis C Medicines by Hospital Pharmacists.

### 4.1 HIV Medicines

The dispensing of HIV medicines from Hospital Pharmacies realises significant savings for the Health Service Executive (HSE) as opposed to dispensing through the High Tech Primary Care Re-imburement Service (PCRS) structure for Community Pharmacy. In 2016, 5,576 patients received HIV medicines costing approximately €57m.

As per SI No 279/2013<sup>10</sup> table 2 outlines the savings achieved through the provision of HIV medicines by hospital pharmacists to patients in 2016.

**Table 2. HIV Medicines Dispensed via Hospital Pharmacies – Savings Achieved in 2016.**

Situation	Savings achieved via Hospital Pharmacies in 2016
If the patients were to be transferred to Community Pharmacy care the prescriptions would be incurring annual fees of	5,576 x 12x €62.03 = €4.2m
Annually, HIV medicines would incur an additional 8% wholesale mark-up via a Community Pharmacy	€4.6m*.
<b>Total Direct Saving to Exchequer</b>	<b>€8.8m</b>

\*It is also recognised that hospital pharmacy dispensing allows full use of medicine packs whereas the wastage through the high tech scheme would be considerable with this patient cohort. Estimates on this additional cost are currently being examined.

HIV medicines to date have not had generic alternatives for combination fixed dose treatments. However in 2017 and 2018 we will see the introduction of a number of fixed dose treatments. Active prescribing direction to change patients to the generic alternatives will need to be provided by hospital pharmacists otherwise it is likely that patients will be switched to newer more expensive products which demonstrate marginal benefit.

In 2018 the savings that could be realised from switching to generic versions of HIV medicines could be in the region of €4-5m (*note: figure to be reviewed once 2016/2017 data available as estimate is based on 2014/2015 spend*).

## 4.2 Hepatitis C

In Feb 2013 the HPAI/IMPACT accepted an agreement with the HSE to dispense medicines from Hospital Pharmacies with the appointment of Clinical Pharmacy Specialists in Hepatitis C. A whole time equivalent (WTE) of 3.5 Clinical Pharmacy Specialists for 7 hospitals was the initial agreed intake on the understanding that the 2011 Hospital Pharmacy Review would proceed to implementation with the 2012 agreed job descriptions.

Whilst awaiting a full complement of information required for this exercise the following information received is useful.

One Hospital is treating on average 20 patients per month with 2 medicines on average at a cost of €16,329 per patient per month. Given that the net allocation is €30m for Hep C medicines in 2016, this model would imply that 1,837 patient treatment months are allowed for in 2016. Assuming this initial pricing model is proven robust when additional information is provided, then transferring these patients to the High Tech PCRS reimbursement structure for Community Pharmacy the schedule of additional costs to the HSE are outlined in table 3.

**Table 3. Hepatitis C Medicines Dispensed via Hospital Pharmacies – Savings Achieved in 2016.**

Situation	Savings achieved via Hospital Pharmacies
If the patients were to be transferred to Community Pharmacy care the annual prescriptions fees would be	1,837 x €62.03 = €113,949m
Annually, Hep C medicines would incur an additional 8% wholesale mark-up via a Community Pharmacy	€2.4m*
<b>Total Direct Saving to Exchequer</b>	<b>€2.5m</b>

\*It is also recognised that hospital Pharmacy dispensing allows full use of medicine packs whereas the wastage through the high tech scheme would be considerable with this patient cohort. Estimates on this additional cost are currently being examined.



## 5 Integrated Pharmacy Services from Acute Hospital Pharmacy to CHO hospitalised patients

A model of an integrated pharmacy service has been presented at the 2016 HSE Excellence awards.<sup>11</sup> The medication safety, discharge prescription checking, continuity of care, compliance with HIQA requirements, Community Healthcare Organisation (CHO) nurse education sessions, patient tracking with information exchange and stock management are fully described. The financial benefits have also been calculated.

A previous exercise for the HSE in 2008 as part of the Hospital Pharmacy Review showed a drug expense differential of 2.9 times more expensive when medicines are dispensed by Community Pharmacy to CHO hospital patients as opposed to the integrated acute hospital/CHO model. For the South- South East region this would have realised annual savings of €5.4m to the region. In November 2010 a briefing document on this model and the benefits of it from a patient safety and cost effectiveness perspective, if implemented nationally, was submitted to the HSE Assistant National Director for Older Persons.<sup>12</sup>

In 2015 a new study undertaken by the Pharmacy Department in Sligo University Hospital using a different methodology focused on a line by line comparison of drug costs in a small number of patients.<sup>13</sup> Despite the changes in PCRS reimbursement to ensure Community Pharmacy use of generic medicines since the original study, the cost differential remains high at 2.4 times.

Converting the statistics to total patient numbers receiving the integrated Hospital Pharmacy service showed a saving in 2016 of €1.4m for 395 patients.

The subgroup is currently trying to assess the numbers of patients who would benefit from the replication of this service and the potential savings. From documents provided to the Public Accounts Committee there are 5,266 patients in long stay beds<sup>14</sup> (now under Dr Siobhan Kennelly as clinical lead for the Integrated Care Programme for Older People (ICPOP)). Within the Sligo University Hospital /CHO 1 Integrated Pharmacy Service Area there are 395 patients but 14% are in Mental Health, 14% are in Disability, 2% in Hospice and 19% are in step down rehab beds with more planned.

If this distribution is mirrored nationwide then there are potentially 5,160 patients in addition to the 5,266 under ICPOP. This figure must be considered with caution until further clarification from CHO's.

In addition some of the CHO beds elsewhere receive their medicines only from Hospital Pharmacy procurement with consequential financial benefits. Nevertheless, the additional savings brought from astute on site stock management by Hospital Pharmacy Technicians under the supervision of the Chief Pharmacist and the clinical interventions of the Clinical Pharmacist will realise significant savings.

Using this as a working model with the above caveats there is significant cost savings to be achieved for the HSE through replication of the 'Sligo Model' nationally, as outlined in table 4.

**Table 4. Potential savings through implementing the 'Sligo Model' to CHO hospitalised patients**

Situation	No. Patients	Savings Achieved
Integrated hospital pharmacy services – model in Sligo University Hospital to CHO hospital patients.	395	€1.4m
	1	€3,544.30
		<b>Potential Future Savings</b>
Replication of the 'Sligo Model' nationally to all care of the elderly patients in long stay beds	5,266	18.66m
Replication of the 'Sligo Model' nationally to all patients in mental health, disability, hospice & step down rehab beds.	5,160	18.29m
<b>Total Potential Future Savings</b>		<b>36.95m</b>

## 6 Antimicrobial Pharmacists

The successful application of the antimicrobial pharmacist's contribution is well measured and verified through their metrics returns to the Health Protection Surveillance Centre (HPSC). For example in a sample hospital the reduction in daily doses of antibiotics per 100 bed days used (BDU) dropped from 78.51 in 2008 to 60.71 in 2016, a 23% drop. The same report showed a drop in cost/BDU from €7.78 to €3.08 in the same period, a 60% reduction in cost.<sup>†</sup>

Appendix 1 provides further evidence on the return on investment from the appointment of an antimicrobial pharmacist in a hospital. Since the appointment of an Antimicrobial Pharmacist in quarter 4 of 2013 there was a cumulative savings of at least €844,133 from 2014 - 2016.

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<sup>†</sup> Available from:

<http://www.hpsc.ie/az/microbiologyantimicrobialresistance/europeansurveillanceofantimicrobialconsumptionesa c/PublicMicroB/SACHC/Report1.html>

Selection of the correct antimicrobial for the correct duration via the correct route, patient monitoring, generation of guidelines, the prevention of drug resistance and its negative effects on patient wellness and safety are key aspects of the specialisation.

The Report of the Review of Antimicrobial Stewardship in Public Acute Hospitals undertaken by HIQA in 2016<sup>15</sup> identified that regardless of hospital type, access at an absolute minimum to an antimicrobial pharmacist working with a medical microbiologist represented a core requirement for any programme to succeed. Failure to have both these specialists working together in some hospitals resulted in significant less effective antimicrobial stewardship, thereby likely increasing the risk to some patients.

The national metrics provided by the HPSC have been assayed to determine the savings over the period 2009-2015.<sup>16</sup>

**The total savings in antimicrobials over the 7 year accounting period accrues to €57.5m from a relatively modest saving in 2009 of €1.2m to €12m in 2015.**

**Additional savings in the use of antifungal medicines since 2008 has also been calculated at €10m for the period.**

A recent national report on the outbreak of Carbapenemase Producing Enterobacteriaceae (CPE) and its management indicated; 9 acute public hospitals had no Antimicrobial Pharmacist and there are no Antimicrobial Pharmacist services available in CHOs.<sup>17</sup> The absence of Antimicrobial Pharmacist expertise in these areas means there are significant additional cost savings available that are not currently being realised.

## 6.1 Antimicrobial Stewardship in the CHO

There is increasing evidence that long term care facilities (LTCF) are significant reservoirs of antimicrobial resistant organisms and this is likely to increase given the rising population >65 years in Ireland. A study of a West of Ireland Nursing homes revealed that 56% of residents were ESBL carriers which is linked to overprescribing of broad spectrum antimicrobials and long term prophylactic antimicrobial use.<sup>18</sup> This issue was also highlighted nationally by the 2016 HALT study<sup>19</sup> and multiple previous HALT studies. The greatest concern in 2017 is spread of even more resistant organisms such as CPE to hospitals.

Therefore it is critical that the interventions carried out by Antimicrobial Pharmacist in the Acute Hospital setting are fully implemented in Community Hospitals for example:

- a. Education of patients, family members and LTCF staff and prescribers on risks of unnecessary broad spectrum antimicrobial use and inappropriate long term prophylaxis. The 2016 HALT study highlighted that almost 1 in 10 residents in 223 Irish LTCFs were prescribed an antimicrobial (twice as likely to be on antimicrobial versus LTCF in Europe) and 44% of overall use was prophylactic (despite national Guidelines highlighting that antimicrobial prophylaxis is generally not indicated).<sup>20</sup> Ongoing HALT studies indicate no improvement in prescribing trends and highlight the necessity of ongoing education programmes by Antimicrobial Pharmacists as per acute Hospital setting.
- b. The national prescribing guidelines will not always reflect local resistance patterns so individualised guidelines should be completed by CHO in consultation with Antimicrobial Pharmacist and Consultant Microbiologist in local Acute Hospital. There is also a need to consult and educate local prescribers on rationale for these guidelines as per Acute Hospital.
- c. The availability of expert advice from Antimicrobial Pharmacist when necessary (for example the rationale for restricted agents, advice on drug dosing, route and duration, interaction checks and advice on treatment of resistant organisms or in patients with complex medical conditions).
- d. Improved surveillance systems are required and regular audits and feedback to prescribers.

On-going well-resourced programmes for antimicrobial stewardship in community hospital settings and indeed in primary care are central to minimise resistance to our limited armoury of antibiotics. The extension of the current Hospital Antimicrobial Pharmacist stewardship interventions into the CHO is a critical step.

## **7 Emergency Department Clinical Pharmacist Cost Benefit Study**

The benefit and cost effectiveness of clinical pharmacy services in relation to adverse drug events (ADE) avoidance has been proven in the literature in various clinical settings. A recent prospective Irish study provides an insight into the cost effective returns that can be delivered.

A 2016 prospective study evaluated the percentage of the pharmacist interventions that involved a potential or actual adverse drug event (ADE) and the cost benefit associated by the pharmacist preventing ADEs.<sup>21</sup> The study described the cost benefit ratio of assigning a Clinical Pharmacist to the Emergency Department (ED) setting. In the study 1 WTE senior pharmacist reviewed 28% of the patients (n=261) admitted into the hospital through the Emergency Department (ED) in one calendar month.

**The study found a cost benefit ratio of at least 3.76: 1 with a potential annual cost benefit of approximately €250,512.**

An exercise to extrapolate these results to other hospitals was undertaken based on the number of patients admitted into hospital via EDs nationally as provided by the Health Pricing Office.<sup>22</sup>

If a similar ED Clinical Pharmacist service is introduced nationally to the 30 HSE hospitals with an annual admission rate of 274,356, the monthly and **annual cost avoidance** could be extrapolated to €626,280 and **€7,515,360** respectively.

Appendix 4 provides details on the extrapolation of the original study's cost benefit results.

The 30 HSE hospitals were surveyed to establish how many had ED Clinical Pharmacist posts and of 22 who replied there were only 4 WTE Clinical Pharmacists assigned to EDs in total.

## 8 National & International Evidence on the Cost Effectiveness of Clinical Pharmacy Services

Over the last 40 years pharmacy services have undergone an immense transformation from solely focusing on medication dispensing and delivery to involving pharmacists in delivering individualised specialised care as part of health care teams. Clinical pharmacists are experts in promoting safe, rational and cost effective medication use.<sup>23</sup> International and national studies have consistently provided evidenced of the positive clinical and economic benefits of pharmacist-directed patient care in a variety of settings.<sup>24, 25, 26,27</sup> However, although clinical pharmacy services exist in many hospitals in Ireland, particularly in model 3 & 4 hospitals, there are variations in the level, frequency and availability of clinical pharmacy services.<sup>28, 29</sup>

It is beyond the scope of the sub group to undertake a detailed evaluation of the cost effectiveness of the current clinical pharmacy services in acute hospitals and the potential net savings that are being realised. However in 2016 PricewaterhouseCopperw (PwC) assessed the potential benefit to the patient and the wider health service of the implementation or expansion of acute hospital clinical pharmacy services as part of the Pharmaceutical Society of Ireland's Future Pharmacy Practice Project.<sup>30</sup> Based on research undertaken in Cork University Hospital<sup>27</sup> on the retrospective evaluation of pharmacist interventions which calculated a substantial annual net cost-benefits of €626,279 and a cost-benefit ratio of 8.64 : 1, PwC **estimated**

**that the potential total cost avoidance that could be achieved in the future from the implementation or expansion of clinical pharmacy services across all acute hospitals is €40.1m.**

The cost effectiveness of clinical pharmacy services is echoed in similar studies conducted in Sweden<sup>30</sup> and Northern Ireland<sup>31</sup> where an Integrated Medicines Management<sup>‡</sup> (IMM) system has been implemented in acute hospitals.

The IMM system has resulted in significant improvements in the quality and safety of medicines yielding health gain and economy and return on investment of £5-8 for each £1 invested in pharmacy services in Northern Ireland. The outcomes of the initial research on the IMM system which was undertaken as part of a randomised control trial and published in 2007 found the following,<sup>25, 31</sup>

- Drug history at admission—reduction of 4.2 errors per patient
- Kardex monitoring—5.5 interventions per patient
- **Reduced length of stay by 2 days**
- **Increased time to readmission—20 days**
- Faster medication rounds >25 min per round
- Faster discharge—>90 min quicker
- More accurate discharge <1% errors compared with 25% by medical staff
- **Decreased rate of readmission**

A numbers needed to treat analysis showed that for every 12 patients receiving the IMM service, one readmission to hospital within 12 months of discharge would be prevented. Since 2007 the IMM system has been adopted by acute hospitals in a number of European countries.

Following the successful realignment of the Clinical Pharmacy Service to Collaborative **Pharmaceutical Care** at **T**allaght Hospital (PACT) in early 2015, clinical pharmacists are now deployed to each of ten specialties in Tallaght Hospital as part of the PACT service.<sup>24</sup> The intended benefits of this realignment are:

- 78% reduction in medication errors at admission and discharge.
- 1,066 inpatients avoid potentially severely harmful errors at discharge each year.
- Reduced bed pressures on the hospital.

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<sup>‡</sup> Integrated Medicines Management – comprehensive pharmacy teams involved at admission, inpatient stay and at discharge, incorporating communication at the intra sector transitions at admission and discharge where most medicine-related problems occur.

## 9 Further Potential Areas Where Savings May be Achievable.

Some further areas where costs savings may be achievable that were discussed by the sub group but not evaluated were,

- Transition to biosimilars.
- Automation through the introduction of robotics in pharmacy departments and automated dispensing units on wards.
- Pharmacist involvement in implementation of ICT solutions such as electronic prescribing, national data reporting and analytics e.g. maternity, oncology.
- Introduction of Advanced Specialist Pharmacists.

## 10 Summary of Cost Savings

Table 4 provides a summary of the annual total existing savings and potential future savings in the sample areas examined which are dependent on implementation strategies.

**Table 4: Summary of Existing and Potential Cost Savings Identified in this Report**

Cost Containment Subgroup: Savings		Total € Existing Annual Savings	Potential Additional Future Savings	Total € Annual Savings
1.	<b>Aseptic Compounding at Hospital Level</b>	€54,251,380	Commercial Aseptic Units* - Average cost per item €1058.	€18,089,100 <sup>i</sup>
	<b>Clinical Trials</b>	€6,500,000	Continued clinical trials is likely to lead to ongoing savings (estimate per annum)	Unknown
3.	<b>HIV Medicines</b>	€8,800,000	Hospital pharmacists can continue to bring in future savings by driving the generic change. In 2018, switching to generics could lead to additional savings of;	€4,000,000 <sup>ii</sup>
4.	<b>Hepatitis C Medicines</b>	€2,500,000		-

Cost Containment Subgroup: Savings		Total € Existing Annual Savings	Potential Additional Future Savings	Total € Annual Savings
5.	<b>Integrated Pharmacy Services</b>	€1,400,000	Potential future savings for the HSE, based on replication of the “Sligo Model” for Integrated Pharmacy Services	€36,950,000
6.	<b>Antimicrobial Pharmacists</b>	€12,000,000 <sup>iii</sup> (based on 2015)	Extend service to 9 Hospitals with no service & to CHOs	Savings to be evaluated
	<b>Antifungals</b>	€2,450,000		
7.	<b>Emergency Dept. Savings</b>  (net benefit)	€250,512	Potential future savings for the HSE, based on replication of the Service provided in OLOL, Drogheda to 28% of ED admitted patients.  Additional cost benefits achievable if higher % of ED admitted patients reviewed	€7,515,360
8.	<b>Clinical pharmacy services</b> (net benefit in CUH only)	€626,279	Expansion /Implementation of clinical pharmacy services across all acute hospitals in Ireland.  (As per PwC report for PSI Future Pharmacy Practice in Ireland)	€40,100,000
	<b>Total</b>	<b>€88.79m</b>		<b>€106.65m</b>

i. This figure is conservative as does not include the expected growth in the compounding of SACT predicted in the National Cancer Strategy 2017 - 2026.

ii This figure will require updating following receipt of 2016/2017 data as prescribing practices may have changed since 2015.

iii. Cumulative savings of €57 million over 7 years – annual for 2015 was €12m and cumulative savings of €10m over 7 years for anti-fungal drugs. Evidence from Our Lady of Lourdes Hospital, Drogheda indicates that continued cost savings are demonstrated with a decrease of 18% in first 6 months of 2017 when compared to the same period in 2016.



## 11 Conclusion

It is acknowledged both in national and international publications that the contribution to the health service by hospital pharmacists is significant. This report focuses on some of the financial benefits of that contribution. The report also concludes that further investment is required both in capital and manpower to fully realise the savings outlined. This subgroup also recommend that monitoring mechanisms be put in place to ensure the savings are realised.

It is also imperative that any implementation group should be cognisant of new and emerging EU legislation/directives/agreements/standards that may impact on pharmacy services in areas such as medication safety, procurement, falsified medicines and clinical trials etc.<sup>§</sup>

## 12 Recommendations

1. Maximise the capability of existing ACUs in Ireland and increase capacity by investing in new units for hospitals.
2. Implement a working model for hospital pharmacists in providing clinical service to patients in CHO beds.
3. Extend the remit of anti-microbial pharmacists to all acute and CHO hospitals.
4. By virtue of the examples identified, such as ED Pharmacist, the continued development of Clinical Pharmacy service will sustain and increase cost containment measures]

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<sup>§</sup> Example of existing, new and emerging EU legislation/ directive/ agreements/standards,

Resolution CM/Res(2016)2 on good reconstitution practices in health care establishments for medicinal products for parenteral use(Adopted by the Committee of Ministers on 1 June 2016 at the 1258th meeting of the Ministers' Deputies) available at [https://www.edqm.eu/sites/default/files/resolution\\_cm\\_res\\_2016\\_2\\_good\\_reconstitution\\_practices\\_in\\_health\\_care\\_establishments\\_for\\_medical\\_products\\_for\\_parenteral\\_use\\_.pdf](https://www.edqm.eu/sites/default/files/resolution_cm_res_2016_2_good_reconstitution_practices_in_health_care_establishments_for_medical_products_for_parenteral_use_.pdf)

European Statements of Hospital Pharmacy available at <http://ejhp.bmj.com/content/21/5/256>

Falsified Medicines Directive, available at: [https://ec.europa.eu/health/sites/health/files/files/eudralex/vol-1/dir\\_2011\\_62/dir\\_2011\\_62\\_en.pdf](https://ec.europa.eu/health/sites/health/files/files/eudralex/vol-1/dir_2011_62/dir_2011_62_en.pdf)

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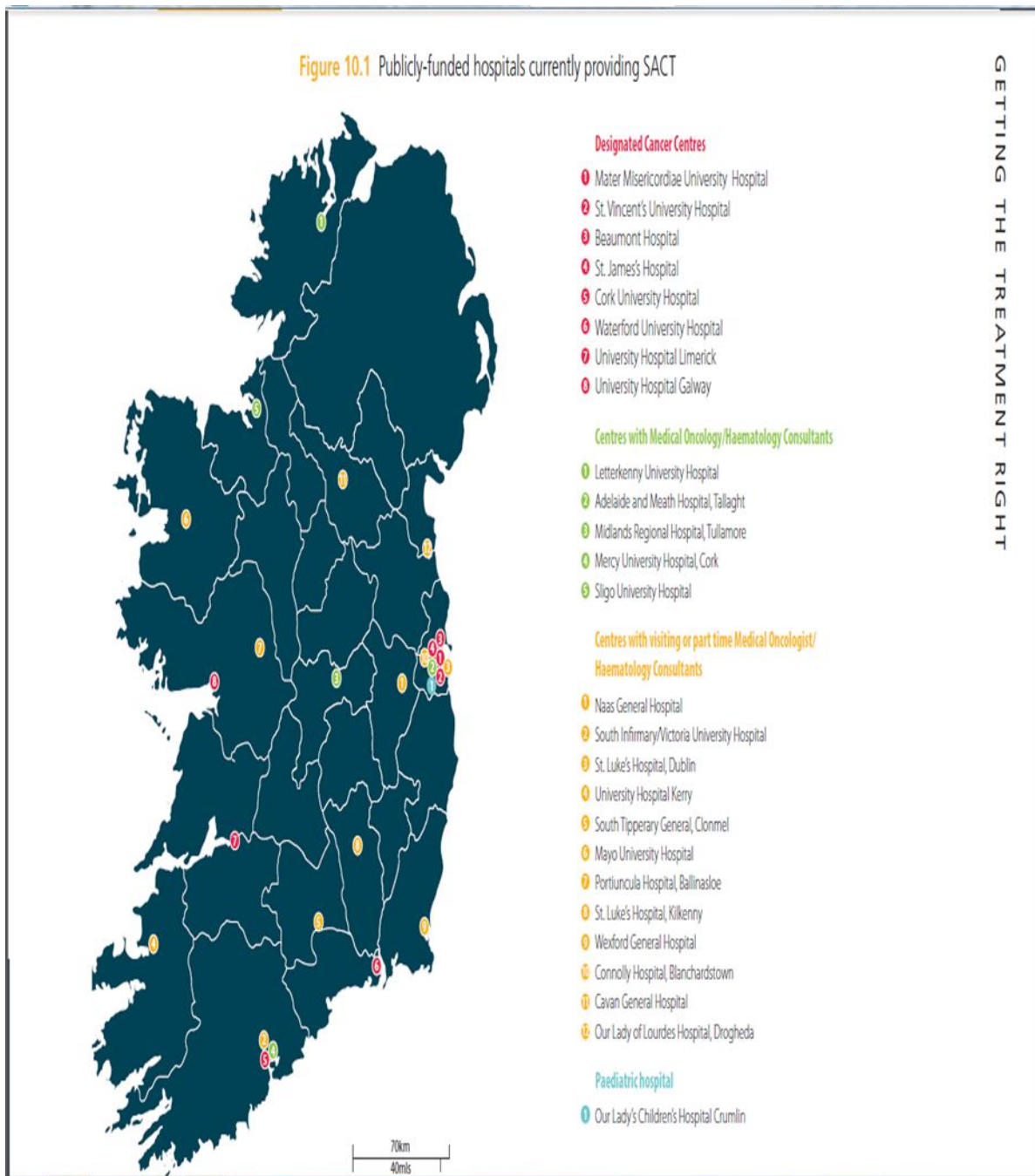
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## 14 Appendices

### 14.1 Appendix 1. HSE/ HPAI Cost Containment Sub Group Membership

<b>Group Member</b>	<b>Position</b>	<b>Representing</b>
Brian Rattigan	Chief Pharmacist, Sligo University Hospital	HPAI
Elaine Conyard	Chief Pharmacist, Our Lady of Lourdes Hospital, Drogheda.	HPAI
Roisín Adams	Chief Pharmacist, Acute Drugs Management Programme.	HSE
Eileen Burke	General Manager, Acute Drugs Management Programme.	HSE
Gerry O'Dwyer	CEO, South/South-West Hospital Group.	HSE (Hospital Groups)
Emma Scanlon	Business Manager, Acute Hospitals Drugs Management Programme.	Facilitator

## 14.2 Appendix 2. Publicly Funded Hospitals Currently Providing Systemic Anticancer Therapies.



### 14.3 Appendix 3. Costs Savings Achieved after the appointment of an Antimicrobial Pharmacist

The figures and table below provide details on the antimicrobial expenditure and consumption in Our Lady of Lourdes Hospital (OLOL) in recent years. Since the appointment of the antimicrobial pharmacist in quarter 3 2013 there has been,

- Reversal of the double digit annual increase in antimicrobial expenditure
- A decline in expenditure which has realised at least €844,133 in savings over 3 years
- A decline in antimicrobial consumption from 108.38 in 2013 to 91.65 in 2016 – see figure 2.

Figures 1. Annual Antimicrobial Expenditure in OLOL 2011 - 2016

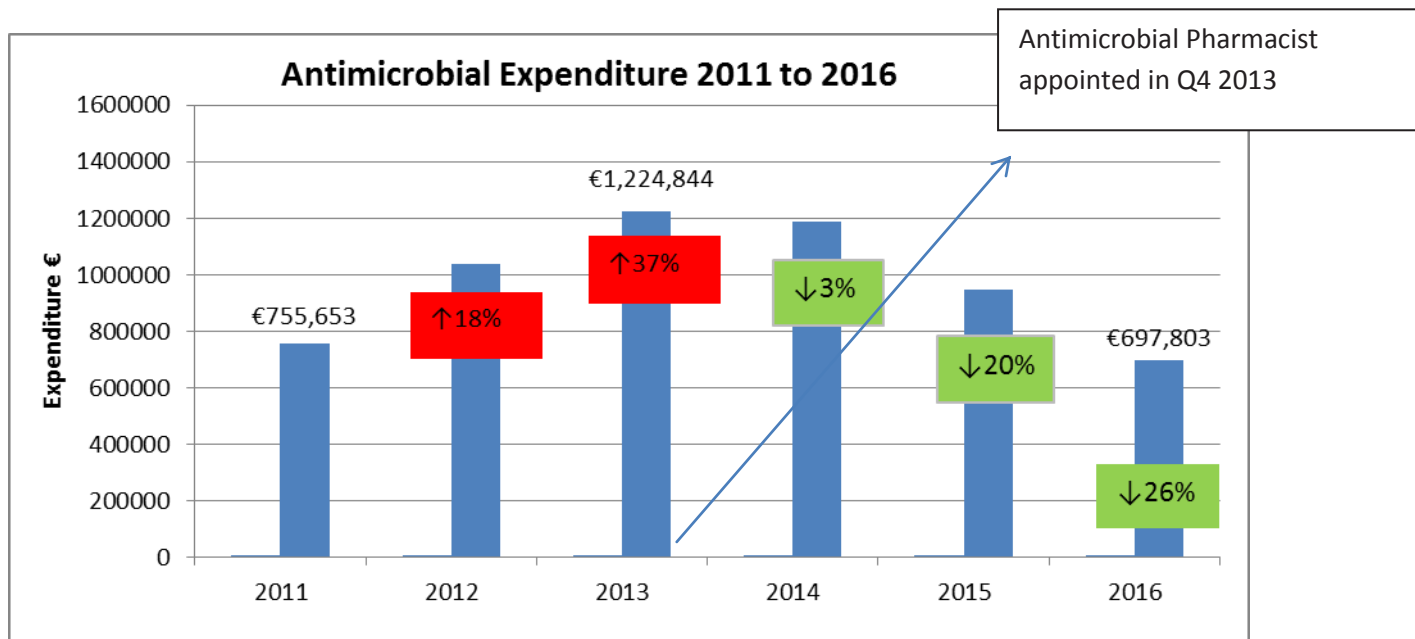
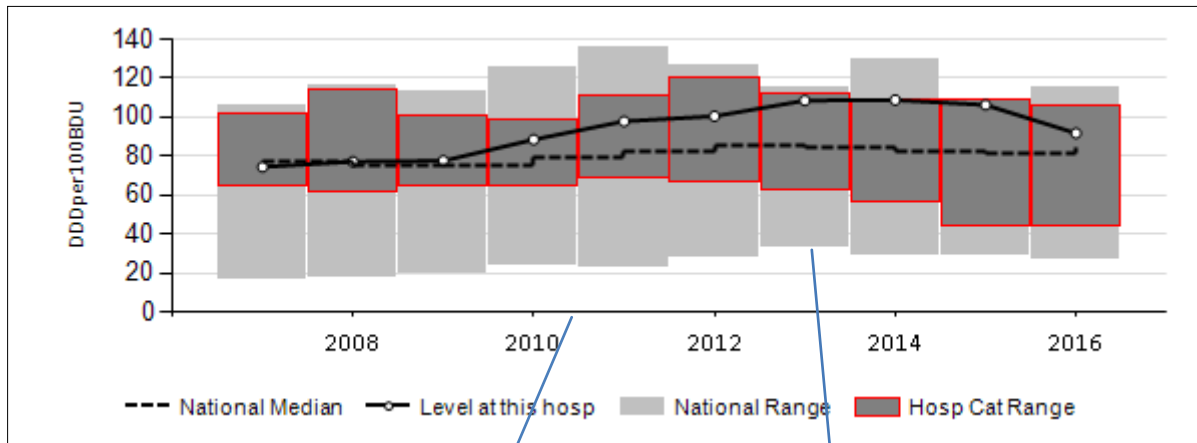


Table 1. Actual Costs Savings & Estimated

Year	Actual Annual Expenditure	Minimum Cost Saving since Antimicrobial Pharmacists Appointment  (If expenditure & consumption had remained at 2013 levels for 2014,15 & 16)	Estimated Additional Costs if the antimicrobial pharmacists had not been appointed  (Costs based on expenditure continuing to increase at the average increase seen in 2012 & 2013 of 27.5%)
2011	€755,653		
2012	€1,036,447		
2013	€1,224,844		
2014	€1,185,307	€39,537	€376,369.10
2015	€947,289	€277,555	€1,043,848
2016	€697,803	€527,041	€1,840,896.71
<b>Total</b>		<b>€844,133</b>	<b>€3,261,113.84</b>

**Figure 2. Rate of a sample hospital's antibiotic use as analysed by the HPSC**



2010 – New build opened in Sept.  
 2011 – Additional ICU beds & new CCU opened in Sept.  
 2012 – 2<sup>nd</sup> Consultant Microbiologist appointed in April

Antimicrobial Pharmacist appointed in Q4 2013  
 Annual increases in consumption of from previous years halted and decreased.  
 2013 DDD/100 BDU = 108.38  
 2016 DDD/ 100 BDU = 91.65  
 (15.43% decrease in consumption)



## 14.4 Appendix 4. Clinical Pharmacist Services in Emergency Dept.- National Extrapolation

The Emergency Department (ED) study undertaken in Our Lady of Lourdes Hospital (OLOL) in 2016 has shown that a cost avoidance of €20,876 is associated with an ED clinical pharmacy service over 162.8 hours (i.e. one calendar month) using one senior pharmacist.<sup>20</sup> This cost avoidance value is based on the ED pharmacist completing 261 patient reviews (28% of patients admitted via ED) in the ED over one calendar month.

If a similar ED clinical pharmacist service was introduced nationally to the 30 HSE hospitals with an annual admission rate of 274,356,<sup>21</sup> the monthly and annual cost avoidance could be extrapolated to €626,280 and €7,515,360 respectively.

### Calculations

OLOL ED admissions in 2016 were 14,423, some hospitals have more or less than this (range = 2,725 – 20,227). It may not be possible for a single ED pharmacist to review 28% of patients in an ED that admits 20,000 patients and it may not be as cost effective for pharmacist to review 28% of 2,725 admissions annually.

For this reason, extrapolation has been based on monthly patient numbers reviewed by an ED pharmacist. In the study, 261 patients were reviewed by ED pharmacist over 1 calendar month (162.8 hours). The cost avoidance was calculated to be €20,876.

Annual cost avoidance per one pharmacist- one hospital service = €250,512

Annual cost avoidance per one pharmacist – thirty hospital service = €7,515,360.

Monthly cost avoidance per one pharmacist- thirty hospital service = €626,280

**Note:** The cost of providing the service i.e. staff costs, have already been deducted from the identified cost savings above. In the original study the cost of providing the services was calculated in accordance with the Health Information & Quality Authority (HIQA) Health Technology Assessment Guidelines.\*\*

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\*\* Guide to Health Technology Assessment. Health Information & Quality Authority. Oct 2016.  
<https://www.hiqa.ie/areas-we-work/health-technology-assessment>

# **Pharmacy Education and Training Subgroup**

**29th June 2017**

## Pharmacy Education and Training Subgroup – 29<sup>th</sup> June 2017 Final

### **Introduction**

During the working group review of HSE Hospital Pharmacy Structures in the context of the 2011 Report on the Review of Hospital Pharmacy, a number of issues were raised that were outside the scope of the working group but required further discussion. This required the establishment of 4 sub-groups to examine education and training; recruitment and retention; advance practice roles and cost containment.

### **Sub-group membership – Education and Training**

The sub-group to examine education and training consisted of the following members:

Sharon Dwyer (SD), AHD Representative, Joint Chair

Joan Peppard (JP), Pharmacist and HPAI representative, Joint Chair

Jackie Reed (JR), National Lead, HSCP, HSE

Aisling O’Leary (AOL), Pharmacist Lecturer, NCPE

Claire Keane (CK), Pharmacist representative tertiary referral hospital

Audrey O’Reilly (AOR), Pharmacist representative smaller hospital

### **Methodology**

The sub-group held two workshops which included presentations from Aisling Reast and Róisín Reynolds from APPEL on the Integrated MPharm Programme, and from Aisling O’Leary, Pharmacist Lecturer on post graduate pharmacy education. This included a review of current and future programmes and challenges for hospitals currently and into the future in facilitating education, training and development of students and qualified pharmacists.

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**Post graduate education and training needs for Hospital Pharmacists**

**Current situation**

Hospitalised patients increasingly present with multiple medication regimes and complex medication management needs. In this context, MPharm graduates require significant on-going education and training in the early post-graduate years to become competent hospital pharmacy practitioners who can:

- Meet the needs of acutely unwell hospitalised patients who commonly have multiple co-morbidities
- Develop and deliver services to meet specialist needs (e.g. oncology patients) in the multidisciplinary team setting
- Contribute to the effective and cost-effective use of medicines for the individual patient

In addition, ongoing education is required to maintain competency with new medication development in areas such as advanced therapeutic medicinal products and developments in drug delivery systems.

In 2012, a national survey reported that 75% of hospital pharmacists had post-graduate qualifications<sup>1</sup>, however, there is considerable variation across hospital settings. Concerns were raised among members of the subgroup that the introduction of the Integrated MPharm Programme would impact negatively on the maintenance of this high rate of post-graduate qualifications for a number of reasons, including the competing demands for tutor support and/or the potential for newly qualifying pharmacists being under financial pressure to undertake additional qualifications having previously had a considerable financial outlay of up to €11,000 to complete the final year of the new programme.

The two main post graduate programmes currently available in Ireland are the:

- M.Sc. in Hospital Pharmacy – University of Dublin, Trinity College, – intake every 2 years, with limited places and requiring weekly release from departments for lectures
- M.Sc. in Clinical Pharmacy – University College Cork – provided as a distance education programme with an annual intake

It was felt that while these programmes are very valuable and relevant to hospital pharmacy services in Ireland, they are considered not sufficiently flexible in terms of delivery and are limited in terms of access to a wider student body. There are several distance education masters programmes available in the UK and Northern Ireland which are also undertaken by hospital pharmacists in Ireland, primarily with a focus on enhancing clinical skills.

The group discussed at length further topical issues that may impact on the level of post-graduate qualifications among the hospital pharmacy profession in Ireland. At present there is a high prevalence among of pharmacists who return from the UK with post-graduate qualifications to M.Sc. level in addition to other specialist hospital practice training courses that are unavailable here e.g.

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<sup>1</sup> PSI Baseline Study of Hospital Pharmacy in Ireland, 2012. Available from [http://www.thepsi.ie/tns/publicaitons/CorePublications/Publicaitons-Archive/publications\\_2012.aspx](http://www.thepsi.ie/tns/publicaitons/CorePublications/Publicaitons-Archive/publications_2012.aspx)

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aseptic training/medicines information. These latter courses are frequently attended by Irish hospital pharmacists, albeit in small numbers. The impact of Brexit is a consideration as it was felt that this may result in fewer pharmacists coming home to Ireland with post-graduate qualifications already obtained requiring them to undertake such programmes, and there is the potential for increased costs for pharmacists to attend courses in the UK.

**Recommendations:**

- Undertake a strategic workforce planning exercise for pharmacy services to identify current and future workforce/service needs.
- Determine future education and development requirements based on the above.
- Engage with education providers to ensure current and future educational programmes for hospital pharmacists are more accessible and flexible.
- Engage with education providers to ensure modules / courses are developed to meet the needs of increasing specialisation within hospital pharmacy.
- Integrate above recommendations into the overall implementation plan for the Review of Hospital Pharmacy Report (2011).

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**Roll Out and Delivery of the Integrated MPharm Programme**

The benefits to students of integrating academic and experiential learning through the Integrated MPharm Programme is acknowledged. The benefits to hospital pharmacy departments and staff from participation in the programme is also recognised. The availability of pharmacy interns will be lost as a resource as the current 4+1 programme is phased out. It is important however, that placements facilitate students to develop the competencies required by the programme without placing such a burden on the workplace that patient services are reduced.

*Year 4 placements (4 months):*

It was felt that Year 4 placements should be dispensary based and on this basis, most hospitals should be able to facilitate student placements for Year 4 students. We cannot be certain however until the requirements of the placement are clarified and departmental managers review this, and consider their own individual circumstances. Requirements of this placement in relation to the competency framework will need to be set out clearly to encourage all hospitals to participate/determine their ability to facilitate students.

*Year 5 placements (8 months):*

The Year 5 placement (an 8 month continuous placement) is intended to be more ‘patient focused’ in line with the PSI core competency framework. A participating hospital would need a reasonably robust clinical pharmacy service to be able to deliver such a “patient-facing” experience. On this basis, not all hospitals would be able to facilitate students on these Year 5 placements.

A desktop analysis of a number of hospital types in relation to Year 5 student placements was conducted by the sub-group:

- A Model 3 hospital with 4 pharmacists (no clinical pharmacy service on site)
  - not deemed to be suitable for such a patient-facing focus.
- A Model 3 hospital with a clinical pharmacy service
  - Could potentially offer 1 Year 4 and 1 Year 5 placement.
- A Model 4 hospital with a complement of approximately 35 pharmacists and bearing in mind their various roles and specialties, potentially 12 pharmacists from a complement of 35 available could assist with mentoring of students in this patient-facing capacity
  - The group considered that approximately 4 – 5 pharmacists would be required per student placement.
  - This scenario could potentially offer 2 – 3 student placements at a time.

Based on this desktop analysis, the stated requirements of APPEL for 60 student placements for Year 4, and 60 student placements for Year 5 is not deemed to be feasible under current circumstances.

Subject to an agreed implementation of the Review of Hospital Pharmacy Report (2011), it is anticipated that all hospital pharmacies will facilitate placements for students on the Integrated MPharm programme, insofar as is practical.

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**Recommendations**

***Develop a separate business case in relation to additional staffing and costs associated with the introduction of the MPharm Programme:***

- Hospital pharmacy managers to be requested to determine the number of students they can accommodate for either year 4 or 5 placements, based on physical infrastructure, staffing levels and the fulfilment of the required domains of the competency framework relating to each type of placement.
- Having regard to ratios in place for other professions and the duration of pharmacy placements, determine the appropriate ratio of specific practice placement support posts to number of students undertaking placements.
- Determine the number of education coordinator assessors required in hospitals to support the introduction of the Integrated MPharm Programme – *pro rata* with the overall number of students to be facilitated in the public hospital sector, and taking into consideration other educational roles required within individual pharmacy departments .

## **Advanced Specialist Pharmacy Role Subgroup**



## Advanced Specialist Pharmacy Role Subgroup

### Summary and Recommendations

<b>Membership:</b>
Deirdre Lynch, Chief Pharmacist, CUH (Chair)
Nuala Doyle, Head of Pharmacy, Beaumont Hospital
Richard Sykes, Chief Pharmacist, Portiuncula Hospital
Tony Canavan, Chief Officer, CHO Area 2, HSE
Tim Delaney, Head of Pharmacy, Tallaght Hospital
Anne Murphy, HR Manager, Acute Hospitals Division, HSE
<b>Facilitator:</b> Emma Scanlon, Business Manager, Acute Hospitals Drugs Management Programme

Terms of Reference
<p><b>1. To agree the title of the role (identified as “Clinical Specialist Pharmacist” in 2011 Report) e.g. “Advanced Pharmacy Specialist” taking into consideration the requirement for clinical and non clinical roles alongside requirements for reporting datasets.</b></p> <ul style="list-style-type: none"> <li>- The group discussed and agreed the importance of recognising “non-clinical” specialist roles under the title of “specialist” as well as clinical specialist roles, e.g. a pharmacist working in an aseptic compounding unit (a non-patient facing role), is still a specialist.</li> <li>- The group agreed that the word “clinical” should be removed from role title as in 2011 Report.</li> <li>- Use of ‘Pharmacist’ (rather than ‘pharmacy’) within the title was agreed as desirable</li> <li>- The use of ‘Advanced’ within the title was considered. It was felt that as the specialist grade is being pitched at a level higher than that of senior pharmacist ‘Advanced’ helps to underline that higher grade. It is important that the role is recognised as a post of value to the organisation and is promoted within local areas and at national level.</li> </ul>
<p><b>Recommendation:</b> Role Title: Advanced Specialist Pharmacist (ASP)</p>

<p><b>2. Job Description: To review and agree a job description with clearly defined Principal Duties and Responsibilities, Eligibility Criteria, Qualifications and/or experience, Skills, competencies and/or knowledge alongside the reporting relationship for the role (HSE template attached). The job description should be broad enough to cover service requirements in the acute hospital and community settings. This will be considered in line with NRS requirements.</b></p>
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- The current NRS Job Description template was populated with the 2012 clinical specialist pharmacist job description, which the group reviewed as the Advanced Specialist Pharmacist job description.
- Minor additions to underline cost effectiveness, rationalisation, and optimisation and the requirement to work on non-specialist tasks as required were added.
- The job description has been sent to the NRS for population of the 'Skills competencies and/or knowledge' section.
- Qualifications for ASPs were considered. It was recognised that there are two groups of potential specialists to consider – current and future. It isn't possible to be prescriptive on educational requirements for current potential ASPs as no formal post graduate opportunities have been available to all uniformly, nor requirements set out for same.
- For future posts, it is important to set the eligibility criteria of the job spec at an appropriately high level. "Post graduate qualification in an area relevant to the role" was incorporated into the required eligibility criteria of the job description. Current staff who may meet criteria but do not have a post graduate qualification should be dealt with separately.
- Agreement needs to be reached on how people are going to reach the advanced levels and support them in doing so. Areas where training and education is encouraged demonstrate good practice. The NHS training structure was cited as a useful model.

**Recommendations:**

1. Amended job spec to be considered for approval by IR working group
2. Included in job spec under essential qualifications: "Post graduate qualification in an area relevant to the role".
3. Included in job spec the requirement to participate in routine duties as required by Chief Pharmacist or Service manager. This is in line with core competencies of PSI, i.e. medicines competency and will ensure upkeep of skills.
4. Additional recommendation - Training & Education: The job description sets minimum standards and requirements for the role. The group recognises that another subgroup has recommended a training and education budget. A structured HSE approach for equal access to post graduate training for all pharmacists is necessary. Refer to nursing and medical models (Request info from Jackie Reed, HSCP Office).
5. Agree a deadline for a 'grandfather clause' current group of pharmacists eligible for this post.

**3. Role Specialities – To agree how different role specialities may be considered in the current and future context, as service needs develop over time.**

- The Group identified situations in many hospitals and in community settings where general clinical pharmacists work at advanced levels but perhaps across a number of specialties. Such people can still operate at an advanced level of clinical pharmacy. This is commonly the case in model 3 or model 2 hospitals or for pharmacists undertaking clinical services to community hospitals or residential care homes. The group agreed these roles should be included within the criteria of advanced specialist pharmacist. It was noted that the risk of staff leaving in particular model 2 and 3 hospitals to get the promotional opportunities of an advanced post in another area would be substantial if a form of Advanced Specialist Pharmacist in general clinical pharmacy is not recognised. This may assist in the retention and recruitment of staff in smaller hospitals (ref: R&R subgroup). It was agreed that this was best described as a "pharmacotherapy" specialist.
- A list of suggested ASP specialties in Table 1 (below) was put forward. The group recognises there has to be a process around how to agree on these posts and future posts, such as posts being linked to a specialty (e.g. ITU, HIV services) that exists within a

hospital.

- **Note:** There is a potential for some specialties e.g. medication safety or antimicrobial stewardship to be considered as service manager roles but that is outside the scope of this group.

**Recommendations:**

1. The group agreed a generalist role, described as a “Pharmacotherapy” specialist should be included in the recommendations of the advanced group.
2. The roles to be considered under “Advanced Specialist Pharmacist” are outlined in Table 1 (this list is not exhaustive). There has to be a process around how to agree on these or further posts.
3. Recommend a title change from “clinical” and “non-clinical specialties” to “patient-facing” and “non-patient facing specialties”.

**Table 1: List of role specialties to be considered for Advanced Specialist Pharmacist**

Clinical (patient facing) specialties	Non patient facing specialties
<ul style="list-style-type: none"> <li>• ITU</li> <li>• Antimicrobial</li> <li>• ED/AMU</li> <li>• Hep C</li> <li>• ID (HIV)</li> <li>• Care of the Elderly</li> <li>• Paediatrics</li> <li>• Renal</li> <li>• Transplant medicine</li> <li>• Anticoagulation</li> <li>• Oncology/Haematology</li> <li>• Perioperative</li> <li>• Mental Health</li> <li>• Maternity</li> <li>• NeoNatal care</li> <li>• Neurology/stroke</li> <li>• Palliative care</li> <li>• Respiratory/CF</li> <li>• Cardiology</li> <li>• Acute medicine</li> <li>• Pharmacotherapy</li> </ul>	<ul style="list-style-type: none"> <li>• Aseptic compounding</li> <li>• Medication Safety</li> <li>• Medicines information</li> <li>• Dispensary</li> <li>• Informatics</li> <li>• Education</li> <li>• Research</li> <li>• Formulary/Guideline development</li> </ul>

**4. To agree a competency framework for advanced specialist pharmacy roles:**

- The Pharmaceutical Society of Ireland (PSI) competency framework is a useful model but it is a core rather than an advanced competency model. It is the only national competency framework for pharmacists currently recognised by Irish regulators. There is little acknowledgement of specialist hospital pharmacy practice within the competency framework. The group agreed that a national advanced framework should be formulated to direct advanced competency. This engagement should begin as soon as possible.

**Recommendations:**

1. The HSE HR should engage with the PSI and Irish Institute of Pharmacy as a priority, to develop an advanced competency framework within an agreed/defined timeframe. The academic institutions and regulator should also be included in the discussions.
2. The advanced competency framework would be built on and developed from the PSI core competency framework. The domains would be similar but with more detail under each competency.
3. The staff who progress into the advanced roles at this stage of the process could come

together to develop the advanced specialist competencies and/or inform the decision making process around advanced competencies, once they are working in the recognised advanced roles. The UK Renal Pharmacy Group has an example of this (1)

**5. Consider cost effectiveness models with a view to audit requirements:**

- The group recognised that the cost containment group are looking at cost saving areas in detail.
- Audit and research and budget awareness should be included in job requirements for advanced pharmacists.

**Recommendations:**

1. Include a cost effectiveness awareness requirement for advanced specialist pharmacist.
2. Put a formulary in place – Advanced Specialist Pharmacists will have authority to work with the doctors on budgets within their specialty, to monitor budgets to ensure Directors of Pharmacy and Directors of Finance have oversight of budget.
3. There are no structures currently in place to measure savings from ASPs to the organisation which can be significant, therefore the addition to Job Spec a requirement to “demonstrate cost awareness and measure/audit cost containment, quality, patient safety and improved delivery of care”.

**6. To acknowledge that flexibility is necessary to adapt to the emerging Hospital & Community structures.**

**Recommendations:**

1. Encourage and support joint clinical programmes and management arrangements around specific specialties, e.g. Antimicrobial pharmacists and antimicrobial teams are a prime example of teams working well.
2. Show the effectiveness of small projects in both the community and hospital environments. The ASPs (Pharmacotherapy) would be well placed to manage these projects.
3. The group recommends the promotion of current successful outreach programmes demonstrating the effectiveness of pharmacists working at specialist levels between primary and secondary care, i.e. medicines optimisation.
4. Establish the principle of breaking the boundary between secondary and primary care – it is about the pathway of care for the patient.
5. Sub-group to examine Pharmacist career structure within community services should be developed

**Additional Recommendations/Observations:**

- A clear, structured career path, highlighting education and training is required for the advancement of pharmacists. This will put more uniformity and structure around the grades within the profession.
- Importance of collegiality and linking with colleagues across the service. The antimicrobial group have worked very well as a network and a similar national approach should be taken with other advanced specialist roles, with specialists linking in with each other on a regular basis.

**Reference:**

- (1) Towards Advanced and Consultant level Pharmacy Practice – A Competency Framework for Renal Pharmacists. UK Renal Pharmacy Group 2009

## **Recruitment & Retention Subgroup**

## Recruitment & Retention Subgroup

Meeting 1<sup>st</sup> June 2017 at 11am, Bridgewater House, Conyngham Road, Dublin

<b>Membership:</b>
Andrew Barber, retired Chief Pharmacist, University Hospital Galway (Chair)
Colm Devine, Chief Pharmacist, Letterkenny University Hospital
Oran Quinn, Chief Pharmacist, Navan General Hospital
Noreen Spillane, Chief Operations Officer, UL Hospital Group
Geraldine Sweeney, HR Officer, Acute Hospitals Division (by phone)
Eileen Walsh, National Health & Social Care Professions Office (by phone)
Edna Hoare, Senior Executive IR/ER, HSE Corporate Employee Relations Services (apologies received for meeting of 1 <sup>st</sup> June)
<b>Facilitator:</b> Emma Scanlon, Business Manager, Acute Hospitals Drugs Management Programme

### Terms of Reference:

<b>Objectives of the Subgroup:</b>
1. To determine the key issues in terms of recruitment and retention for hospital pharmacists
2. Identify the issues that can be addressed by an improved career structure
3. Identify key outstanding issues that may exist after exercise is complete
4. Report back to IR Steering Group on 15 <sup>th</sup> June 2017

**Note:** The group recognised that its discussions and recommendations may crossover with the work/remit of some of the other subgroups.

<b>1. To determine the key issues in terms of recruitment and retention for hospital pharmacists</b>
Key Issues and areas of concern regarding recruitment and retention of hospital pharmacists were identified by each of the group members:

<p><b>Colm Devine, Chief Pharmacist, Letterkenny Hospital:</b></p> <ul style="list-style-type: none"> <li>• The reduction in starting salary for basic grade pharmacist in 2011/2012 from 6<sup>th</sup> point to the 1<sup>st</sup> point scale has resulted in a two-tier pay system within hospitals. The low starting salary, compared to private retail pharmacy, has negatively impacted recruitment of basic grade pharmacists. Pharmacists are in direct competition with private sector in this regard. Less than 10% of pharmacists work in Irish hospitals comparing to 21% in the UK. New grad starting salaries in retail are currently around €50-60k.</li> <li>• Lack of recognition in career structure. Job descriptions do not match the actual roles carried out by pharmacists. Specialist roles need to be recognised and developed. Matching responsibilities in the Pharmacy Review with new salaries will aid recruitment and retention.</li> <li>• Flexible working arrangements – these arrangements are often not made available to staff as a result of refusal and delays in backfilling. With a high proportion of female staff in the profession, the lack of family friendly policies can negatively impact recruitment and retention.</li> </ul>
<p><b>Oran Quinn, Chief Pharmacist, Navan General Hospital:</b></p> <ul style="list-style-type: none"> <li>• Recruitment of pharmacists in Model 3 hospitals is a key issue. Difficulties matching roles and locations, getting approval for posts and full WTE approval. Low uptake on applications for posts. Delays in recruitment process.</li> <li>• The lack of agreed/recognised national service levels has led to wide variation in the pharmacy services             <ul style="list-style-type: none"> <li>○ Patients in Sligo for instance have access to clinical pharmacy services absent in other comparable hospitals</li> <li>○ There is a tendency to withdraw clinical services when long term temporary absences are not filled. Pharmacists do not feel valued and additional workload has to be taken up by remaining staff.</li> </ul> </li> <li>• Educational funding: To progress and specialise in the pharmacy profession, further education is a priority. However, this can be costly for the individual and there is little protected time offered to complete studies.</li> <li>• Pre-registration courses: There are very few funded pre-registration courses in the hospitals.</li> <li>• Implementation of the hospital pharmacy review 2011.</li> <li>• Competition from community pharmacy – remuneration rates for community pharmacists have continued to rise since the lows of 2009. The difference is now comparable to 2003 when agreement was given to commence basic grade pharmacists on the 6<sup>th</sup> point of the scale to address this exact issue. This needs to be reinstated.</li> </ul>
<p><b>Noreen Spillane, Chief Operations Officer, UL Hospital Group:</b></p> <ul style="list-style-type: none"> <li>• Urban vs. Rural – Isolation factor to be considered for more rural pharmacists. Improved communications and group working with rural/urban pharmacists and hospitals suggested.</li> <li>• Education &amp; Training – Pharmacists should be allowed to avail of clinical and non-clinical educational opportunities.</li> <li>• Physical Infrastructure – poor infrastructure in some sites (e.g. in the west) can negatively impact a pharmacist’s decision to join the organisation. A pharmacy should be “fit for purpose”.</li> </ul>
<p><b>Eileen Walsh, HSCP Office:</b></p> <p>To support the group from a HSCP perspective.</p>

**Geraldine Sweeney, HR Officer, Acute Hospitals Division:**

- Experienced in recruitment and retention campaigns, e.g. nursing recruitment.
- Highlighted the importance of having a concurrent focus on recruitment and retention.
- What are we doing to keep our pharmacists? Are we conducting exit interviews? Are there educational opportunities? Are permanent contracts being offered?
- Good induction policies make you stand out as an employer.
- Recruitment process in NRS - How can we make it more effective? Process should be lean. How are we currently recruiting staff? Are we using all communications methods most effectively – e.g. online recruitment, targeted campaigns in universities and schools, recruitment apps, etc.
- Promote education & training opportunities, flexible working arrangements, promotional opportunities, coaching & mentoring supports.

**2. To identify the issues that can be addressed by an improved career structure:**

**Career Structure:**

The group agreed that if the proposed McLoughlin Review of Hospital Pharmacy is implemented, it should help improve a number of the issues raised under recruitment and retention. It recognised that the career review is to be implemented under “a dialogue of change”, taking into account the current organisational structures and adopting the ‘as is’ staffing situation as a starting point. A modern career structure which recognises the changed role of pharmacists within the health service will aid the retention of pharmacy staff.

In terms of education and training, more structure needs to be put in place around how a pharmacist can progress to higher levels of the profession. Clarity needed around CPD. Develop a road map for pharmacists (education and training) to facilitate career progression in the future. This would outline how a staff member (pharmacist) can get to where they want to go.

Governance – an improved and more visible governance structure is key within the pharmacy structure. It is important that there is clarity around individual roles and who reports to whom. It was advised this is covered in the main group and is reference in the main report.

**Subgroup Recommendations:**

**1. Pre-registration/Internship Programme:**

Introduce a formalised structure for pre-reg/internship programme for pharmacists. The group recommends both mentor(s) and clinical tutor(s) being in place in the hospitals that operate the programme. As the career review allows flexibility among the groups. e.g., sharing resources, the pre-reg posts do not need to be in every hospital. Interns should be treated as supernumerary and be trained to work in both hospital and community.

Clinical tutor: Identify person(s) in the department (with necessary skills and experience) who can take on the responsibility for taking on students. Historically the chief pharmacist would have been the tutor but that is not practical today. The post should be recognised as a stand-alone post. A “cap” regarding no. of students per tutor is recommended.



Note: Within the HSCP professions, in 2005, the DOH/HSE agreed a ratio of 1:20. That is one practice tutor for every 20 students. It does not mean that a tutor will take 20 students at any given time, but overall there is one tutor for every 20 students.

Tallaght Hospital currently operates a good programme structure. Other disciplines, e.g. nursing, operate similar programmes.

**Recommendation:**

**Note: This recommendation has been revised following consultation with the Education & Training Subgroup**

To incentivise pharmacists to choose a career in hospital pharmacy, hospital based practice placements for pharmacy students must be adequately resourced in terms of

- Numbers of placements available
- Types of placements available
- Availability of tutors and learning support
- Availability of access to the necessary equipment (e.g. desks, computers with internet access)

**2. Salary:**

Starting salaries for basic grade pharmacists were reduced in 2012. Expectations for starting salaries are much higher than the reality for basic grade pharmacists. Recruitment agencies report<sup>1</sup> that there are currently very few pharmacists (on their books) willing to work in hospitals.

**Recommendation:** In recognition of the special circumstances previously recognised in 1998, whereby disparity in remuneration rates for new entrants in community pharmacy were adversely affecting recruitment of new pharmacy graduates - reinstate/restore the pre 2011/2012 levels of pay for basic grades of pharmacists to starting on the sixth point of the basic grade salary scale. New salaries for all new grades commensurate with responsibilities.

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<sup>1</sup> “Currently we do not have experienced pharmacists actively looking on our books. We may have a number of candidates with little or no experience that might be interested. The problem is that candidates are looking for longer contracts”. CPL Recruitment 29<sup>th</sup> May 2017

“In comparison to 12-18months ago we have difficulties recruiting hospital pharmacists, if so they have little hospital experience”. TTS Recruitment May 2017 Personal communication.

### 3. Flexible Working Arrangements:

As a considerable majority (around 80%) of pharmacists in hospital are women, the availability of flexible working arrangements is an important consideration for staff when considering their recruitment options and for retention of staff. Although the policy exists under HSE guidelines, in practice it is not often made available to staff due to issues with backfilling posts. The group advised there are considerable issues with getting approval for backfill in certain areas, including getting approval to cover maternity leave. When a post is not backfilled this puts pressure on other staff which may affect retention and recruitment.

Cross hospital group cover and rotation of staff suggested as a possible solution in some areas, however, it is recognised that geographical difficulties exist and certain legal issues under the Pharmacy Act 2007 arise with cross cover.

Employee Benefits: In order to attract and retain the best talent, we need to promote what we can offer as an organisation. HSE benefits include pension entitlements, career opportunities, education and training and flexible working arrangements are key. With a sizeable majority (90%) of pharmacists working in the private and retail sector, we need to identify the gap between working for the HSE compared to the community/private retail market, and close it. Target - agency workers, locums, overseas workers, etc. Ensure we are offering current staff (temporary and permanent) the same opportunities as new recruits.

**Recommendation:** Flexible working arrangement should be promoted however it needs to be recognised by the organisation that service levels are to be maintained and clinical risks identified if a pharmacist is not replaced. Approval for backfill of posts should be made with consideration made to the clinical/organisational risk of the post not being backfilled.

#### 4. Rural/Urban Recruitment:

**Recruitment:** Difficulties exist with recruiting pharmacists in rural areas. To address this concern, a number of recruitment recommendations were made:

**Recommendation:** Target academic institutions (schools and universities) and organise careers fairs in rural areas. Promote local services, i.e. the benefits of staying home and staying local, as part of a recruitment campaign done in partnership with HR and NRS. Promote the values of the hospital, the group or the community. Share pharmacy and organisation good news stories. We can no longer expect staff to come to us. We need to target them.

Review the UK model - Significant numbers of Irish pharmacy students go to the UK to study and don't come back. We need to exploit that option and look at ways of attracting potential staff to repatriate.

Provide students with clear information booklets, giving details on career structure and career progression opportunities, etc. Students on placement are the health services' employees of the future; and if they have a good experience at a particular location, will most likely return to work in that location. This should assist in locations where there are difficulties in recruiting and retaining pharmacists.

Recruitment methods: consider alternative recruitment methods, e.g. mobile app recruitment. Look at airports as a location for targeted recruitment. Get pharmacists on board to assist with recruitment and promote the service.

**Integration:** Cross cover should be explored as a possibility within hospital groups to alleviate urban recruitment pressures and staffing issues that arise. E.g., Roscommon hospital working with Ballinasloe and Portlinculla hospitals. This model would work primarily with model 1 and 2 hospitals with recognition of geographical, logistic, professional and legal issues that may arise.

Implementation of the Pharmacy Review will benefit Rural recruitment/retention and specific focus on adequate staffing in the future will give long term gains.

#### 5. Access to funding for Education and Training to support key posts:

**Recommendation:** Access for pharmacists to approved funding for education and training opportunities to facilitate career progression and development.

This would include a variety of training and educational opportunities, including short courses, management training, leadership training, etc. Some hospitals that conduct clinical trials have more money to spend on training which puts them at an advantage. A clear training budget needs to be identified for pharmacists at all levels. It is recommended that this budget would be distributed at the discretion of the chief pharmacist of the hospital and should be linked to CPD of staff. Other disciplines like nursing, medicine have an annual training budget in place.

The career review has identified the advanced pharmacy specialist post. To achieve this in the future one would need a formal further education/post grad education, eg, certs, degrees, masters, HDip. For now it is important we need to recognise and adopt the 'as is' specialists and roles.

Specialised training: Examples - Informatics training for electronic health records, automated dispensing cabinets, clinical information systems, E-prescribing. The role of medication training / safety and clinical pharmacy training.

HSE Training: Equip staff with the training they may need to progress to higher level posts. E.g., First time manager courses.

**Infrastructure** – Look at development and improvement of capital infrastructure and IT infrastructure in hospital pharmacies.

## 6. Retention:

### **Recommendations:**

**Exit Interviews:** Encourage managers to carry out exit interviews with departing staff to determine why a staff member decides to leave. It is important to gather the information on the reasons why in order to inform the recruitment process and ensure that changes, where possible, are made. This could be done online and/or anonymously. Provide training to managers on how to do this. If there are high levels of staff leaving, focus on staff engagement to improve a situation.

**New starter interviews:** Determine the deciding factors for someone joining the organisation. How did they hear about us? Use this information to build on the positives. How did they find the recruitment process and induction process?

Flexible working (as discussed under point 3) and the option of **Career breaks** encourage staff to come back to the organisation after their time off. This is a retention bonus.

**Personal Development Plans (PDPs):** Not necessarily CPD, but a PDP should be agreed with their mentor/line manager once an employee commences their role. There needs to be recognition of the lack of middle management within most existing pharmacy department structures whereby all are direct reports to the chief pharmacist making PDPs for larger model 3 hospitals challenging.

**Promote coaching & mentoring resources to existing staff and training courses:** The group recognised that training availability can be an issue but that it is important to ensure a consistent and fair approach across the hospital groups re training options and availability. Education and training needs to be a protected resource. It should be seen as part of employment and should be

facilitated by local management. There needs to be a clear message from senior management that mandatory training needs to be facilitated.