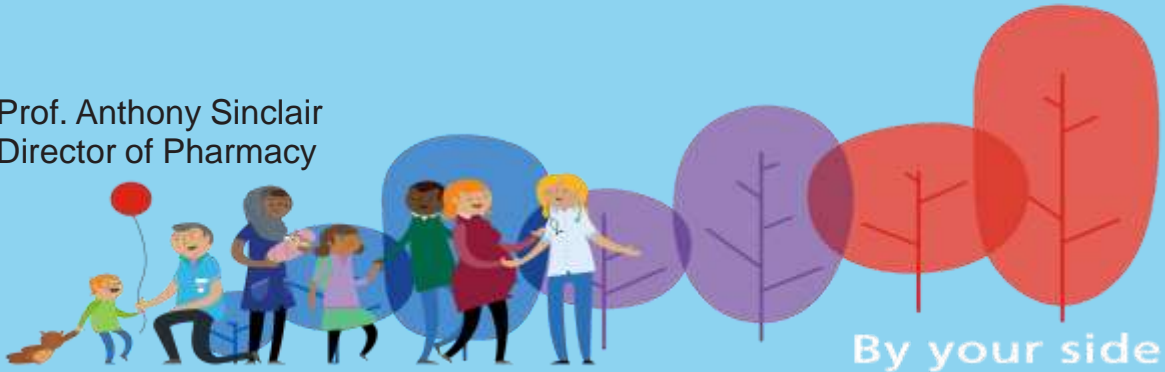


# The growing role of hospital pharmacists in the outpatient setting

Prof. Anthony Sinclair  
Director of Pharmacy



## Conflict of Interest

No Conflict of interest



# Question !

Does the role of the hospital pharmacists in the outpatient setting *need* to grow or change ?



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## Birmingham Women's and Children's Hospital

- Birmingham Children's Hospital is over 150 years old as is Birmingham Women's Hospital
- A specialist paediatric centre
  - The hospital pioneered the country's first ever infant liver transplantation in 1989
- The first Rare diseases centre in the UK
- There are 34 different specialties and also 11 nationally commissioned services
- 378 beds plus 150 beds (Women's Hospital) plus 1000 CAMHS community patients
- 175,000 outpatients



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# Birmingham Health Economy

Combined Health and Social Care economy

1.8 million people

€ 835 million funding gap



Care and support services might typically include:

- equipment
- help in your home
- community support and activities
- day centres
- home adaptations
- residential care
- financial support
- information and advisory services, and advocacy
- support for carers
- other care support



# The local Economy

- Birmingham is the youngest core city in Europe (46% < 30 years old)
- 5 universities
- Solihull has an aging population (19% >65 years)
- Diverse population ( 42% from a non white ethnic group)
- Unemployment is 2.5 x the national average
- Yet also a National economic hub, drawing in 85,000 workers daily
- Homelessness is more than 3x the national average
- 10 year life expectancy gap between the poorest and wealthiest areas





- 440,000 ( 46% of the footprint population) live in the "bottom 10%" most deprived areas in England
- 1 in 3 children live in poverty
- Mortality rate – 30% worse than the national average

- 7 acute Hospitals
- 182 GP (family doctor) surgeries



# What is an Outpatient?

*The growing role of hospital pharmacists in the outpatient setting.....*

-  Day Cases
-  23 hour wards
-  Hospital at Home initiatives to speed discharge
  - I.V. antibiotics [OPAT]
-  Reducing length of stay



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# Length of Stay (LoS)









 Working more efficiently



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## Crossing the Quality Chasm (2001!!)

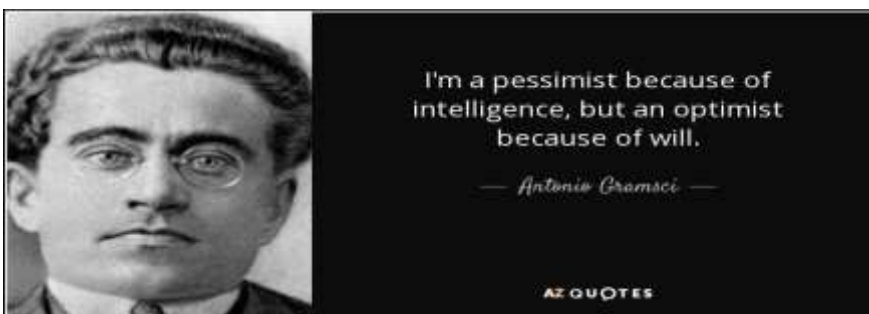
-  Safe: avoiding injuries to patients from the care that is intended to help them
-  Effective: providing services based on scientific knowledge to all who could benefit, and refraining from providing services to those not likely to benefit
-  Patient-centered: providing care that is respectful of and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions
-  Timely: reducing waits and sometimes harmful delays for both those who receive and those who give care
-  Efficient: avoiding waste, including waste of equipment, supplies, ideas, and energy
-  Equitable: providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status

*Crossing the Quality Chasm: A New Health System for the 21st Century* is report on health care quality in the United States published by the [Institute of Medicine](#) (IOM) on March 1, 2001. A follow-up to the frequently cited 1999 IOM patient safety report *To Err is Human: Building a Safer Health System*, *Crossing the Quality Chasm* advocates for a fundamental redesign of the U.S. health care system.<sup>[1]</sup>

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## Too difficult for us as pharmacists ?

*As a profession, tend to consider why we can't or shouldn't do something !*



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# In England we've been..... *Encouraged!*

## Lord Carter review of the health service



# Carter review

Variation between how hospitals operate that are worth £5 billion in efficiency opportunities

|  |  |
|--|--|
| <b>Overall non-specialist acute hospital costs</b> | Average cost of an inpatient treatment is £3,500 but there is 20% variation between the most expensive trusts (£3,850) and the least expensive (£3,150)  |
| <b>On the ward</b>                                 | Average 9.1 hours of care provided by registered nurses and health care support workers per patient day but variation from 6.33 to 15.48 hours, although we should be mindful of comparing different types of wards and trusts   |
| <b>In the operating theatre (Orthopaedics)</b>     | Deep wound infection rates for primary hip and knee replacements currently range from 0.3% to 4%. If all hospitals achieved 1% this would transform the lives of 6,000 patients and save the NHS £300m per year  |
| <b>Procurement</b>                                 | Average price paid for hip prosthesis varies from £788 to £1590, and trusts buying the most are not paying the lowest price  |
| <b>In the pathology lab</b>                        | Pathology providers are considered productive if the cost of pathology to the trust is less than 1.6% of operating expenditure. Data gathered suggests a two-fold variation in the current cost – from 1.1% to 2.4%  |
| <b>In the medicine cabinet</b>                     | Stockholding varies from 11 to 36 days, and if everyone achieved 15 days this would save £20m  |
| <b>HR Department</b>                               | Sickness and absence rates vary from 2.7% to 5.8%. This is a variation of 116%   |
| <b>On the hospital estate</b>                      | Total estates and facilities running costs per area (€/m2) – trusts are considered good if their metric is lower than £320, the current variation is between £106 and £870. If everyone achieved the median this would save £1bn per year. Non-clinical space (% of floor area) – trusts are considered good if their metric is lower than 35%, the current variation is between 12% and 69% |





# Pharmacy examples

- 45% of pharmacy time is spent on supply chain activities
- Data for 120 Hospital trusts showed stock holding varied between 11 and 36 days (average 20 days, value £200 million)
- 50% of medicines supplied by wholesalers : 50% from manufacturers.
  - This means up to 30 deliveries a day = inefficient
- Standardising chemotherapy doses has reduced service demand by 24% and also waste and drug expenditure
- *The report has a target for 80% of pharmacist activity to be engaged in ward based clinical services. Why??*



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# Medicines Optimisation

- Medicines wastage in the NHS est £300 million p.a. this included:-
  - £90 million of unused medicines in patients homes
  - £110 million returned to community pharmacies
  - £50 million disposed of unused in care homes
  - Cost flowing from poor control of chronic conditions with associated complications were estimated to cost £500 million p.a.
  - 30-50% of medicines are not taken as recommended (long term conditions)
  - 16-20% of patients starting a new medicine are not taking it as prescribed
  - 6.5% of hospital admissions due to adverse drug events
    - £466 million p.a.
    - 4% of bed capacity

Evaluation of the Scale, Causes and Costs of Waste Medicines; York Health economics consortium; Trueman, P et al; 2010  
[http://discovery.ucl.ac.uk/1350234/1/Evaluation\\_of\\_NHS\\_Medicines\\_Waste\\_web\\_publication\\_version.pdf](http://discovery.ucl.ac.uk/1350234/1/Evaluation_of_NHS_Medicines_Waste_web_publication_version.pdf)  
<https://www.rpharms.com/promoting-pharmacy-pdfs/mo--evidence-in-practice.pdf>  
<https://www.england.nhs.uk/wp-content/uploads/2014/03/psa-sup-info-med-error.pdf>



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# Innovation....







1. *Inourced* Outpatient services (Outsourced outpatient pharmacy services is standard practice in many European countries)
2. Transfer of care programs
3. Family Doctor pharmacists
4. Interface Pharmacy ["Lack of specialist knowledge in primary care"]
5. Extended discharge medicine supply [Manage transition]
6. Pharmacy Patient Forum Group
7. Pharmacist led Outpatient Clinics



# 1. Outsourced Outpatient services





# Inourced Outpatient services

-  The Medicine Chest
-  Run commercially
-  Staff specially trained
-  Efficient
-  Patient centered
-  Expert advice



# The Medicine Chest -2

-  Medicines  
Information leaflets for  
children
-  Child friendly  
formulations



<http://www.medicinesforchildren.org.uk/>



## 2. Transfer of care programs

**Keeping patients safe  
when they transfer  
between care providers –  
getting the medicines right**

*Final report*  
June 2012



### THE EXTENT OF THE PROBLEM

- It is widely accepted that when patients move between care providers the risk of miscommunication and unintended changes to medications is a significant problem.
- Between 30 and 70% of patients have either an error or an unintentional change to their medicines when their care is transferred (1).
- Incidents of avoidable harm to patients can result in unnecessary readmissions (around four to five percent of hospital admissions are due to preventable problems with medicines) (2).
- And in some cases the impact on patients can be devastating.



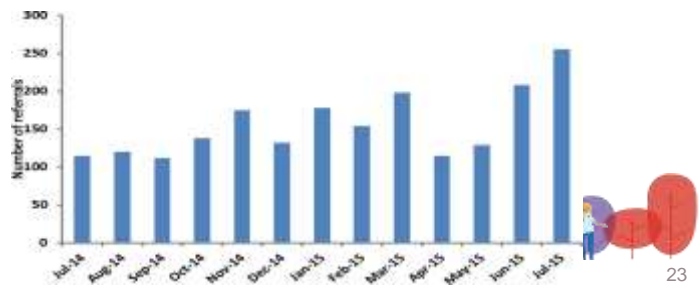
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## East Lancashire Hospital Trust



Contact: [alistair.gray@elht.nhs.uk](mailto:alistair.gray@elht.nhs.uk)

- Electronic patient referral system between two Hospital sites in Newcastle-upon-Tyne and 207 community pharmacies in the region
- 2029 patients referred over a 13 month period
- 31% (n=619) of patients elected to have a follow up consultation with community pharmacist



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# Electronic referral to Community Pharmacy






**NHS**  
Birmingham Women's  
and Children's  
NHS Foundation Trust



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## 3. Family Doctor practice pharmacists - 1








**NHS**  
Birmingham Women's  
and Children's  
NHS Foundation Trust


-  Investment plan for General Practitioners (Family Doctors)
-  Included in the plan are more Doctors, Practice nurses and support staff including
-  1,500 Clinical Pharmacists
-  Pilot launched in July 2015
-  December 2016 saw 490 additional clinical pharmacists working across 650 GP practices



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# Family Doctor practice pharmacists - 2








-  Resolve day to day medicine issues
  -  Manage long term conditions ( dose adjustments, medication queries, minor ailments)
  -  Re-authorise prescriptions
  -  Multiple medicine (polypharmacy) advice
  -  Assist with Communication across the interface
  -  Manage medicine shortages (alternatives)
  -  Frees up 60 hours of Doctor time !

 Haxby group of GP surgeries York <http://www.pharmaceutical-journal.com/careers/career-feature/all-you-need-to-know-about-gp-practice-pharmacists/20201042.article>



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## 4. Interface Pharmacy





-  Family Doctors and Community Pharmacist often lack specialist paediatric knowledge
-  Commissioning arrangements can be complicated
-  Obtaining supplies of the correct medicine made to an appropriate formulation in a reasonable timeframe can be problematic
-  The interface team liaise between health care professionals and patients
-  Manage and source medicines
-  Manage Commissioning data
-  Manage on going complex medicine supplies



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## 5. Extended discharge medicine program - 1

-  A Family Doctor (GP) handles <> 150 patient episodes a day
-  A patient discharged from hospital may arrive at GP surgery before or with discharge information
-  A large % of patients (16-50%!) do not take medicines as intended
-  6-9% of hospital admissions are due to poorly managed medicine therapy








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# We have a problem !!



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## Extended discharge medicine program - 1

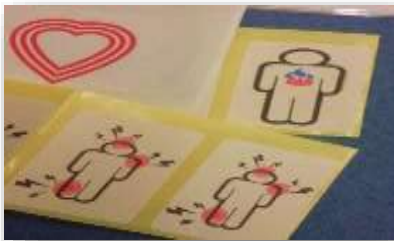
-  We offered to manage medicine therapy for GPs for a transition period
-  Liaise with GPs – information arrives and they have time to assimilate it
-  Liaise with community pharmacies and other healthcare professionals
-  Support patients with medicines and tests for a transition period
-  The service is cost neutral !





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## 6. Pharmacy Patient Forum Group -1

Walsall Healthcare **NHS**  
NHS Trust



-  Ishrat S Ali (Senior Clinical Pharmacist)
-  Gemma Harris (Ward Based Services Technical Manager)

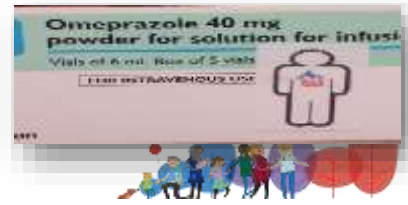


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# Pharmacy Patient Forum Group -2

**NHS**  
Birmingham Women's  
and Children's  
NHS Foundation Trust



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## 7. Pharmacist led Outpatient Clinic – 1

**NHS**  
Birmingham Women's  
and Children's  
NHS Foundation Trust



Julie Baker

- Renal pharmacist for 12 years
- Independent Prescriber 3 years
- Work with the Peritoneal dialysis and Haemodialysis Consultants
- OP clinic to improve the treatment of anaemia
- Administer IV iron and first dose Epoetin injections
- Patients are referred to Julie for assessment with low haemoglobin and ferritin levels despite being on oral iron
- Julie decides on the treatment; Cannulates patients and administers therapy
- Treatment is prescribed in advance (by Julie), and screened, dispensed and checked by another pharmacist



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## Advanced Clinical Practice (ACP) Pharmacist training -1



### Clinical Examination Skills for Healthcare Professionals (40 CATS points at Masters level)

To provide the theoretical underpinning and practice base to enable the health care professional to deliver safe and effective autonomous care. This will include patients presenting with undifferentiated and undiagnosed primary and secondary care conditions across the age and acuity spectrum

Assessed Essay/course work 4000 words  
Four observed structured clinical examinations (OSCE)  
Portfolio of evidence from own clinical practice



## Advanced Clinical Practice (ACP) Pharmacist training -2



### Clinical Investigations & Diagnostics for Healthcare Professionals (20 CATS points at Masters level)

**Aim:** to complement the clinical examination module to provide the student with the theoretical underpinning for the acquisition of a range of skills and knowledge to support safe autonomous practice when requesting and interpreting clinical investigations for a wide clinical spectrum of conditions.

Assessed Essay/course work 2000 words  
Two observed structured clinical examinations (OSCE)  
Portfolio of evidence from own clinical practice



Space

The Final Frontier ?



You decide !



## Summary

1. Pharmacy needs to change to reflect both the needs of patients and the economic pressures facing Healthcare today
2. Innovation usually comes from the grass roots and leads guidance and accepted practice





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# Thank you for listening

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