Pharmacy At Scale

Steven Barrett & Dr Wasim Baqir
Northumberland Vanguard
Our health and care system

11 HOSPITAL SITES

1049 Beds
Providing care for 73,000 patients on 48 wards every year

UK’s first specialist emergency care hospital

£485m Northumbria

£440m CCG

£50m Mental Health

70 Community Pharmacies

1.7m primary care consultations

44 GP PRACTICES

322k patients

Adult social care

70k Home visits

3000 care home residents

One system, one team, one you
We’re getting on!

**Old Age Dependency Ratio**

(people of pensionable age per thousand people of working age)

<table>
<thead>
<tr>
<th>Ages</th>
<th>2014</th>
<th>2019</th>
<th>2024</th>
<th>2029</th>
<th>2034</th>
<th>2039</th>
</tr>
</thead>
<tbody>
<tr>
<td>75 &amp; over</td>
<td>5.2</td>
<td>5.8</td>
<td>7.0</td>
<td>7.8</td>
<td>8.7</td>
<td>9.9</td>
</tr>
<tr>
<td>75-84</td>
<td>3.7</td>
<td>4.1</td>
<td>4.9</td>
<td>5.4</td>
<td>5.6</td>
<td>6.3</td>
</tr>
<tr>
<td>85 &amp; over</td>
<td>1.5</td>
<td>1.7</td>
<td>2.0</td>
<td>2.4</td>
<td>3.2</td>
<td>3.6</td>
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*Old Age Dependency Ratio (people of pensionable age per thousand people of working age)*

|                  | 310.4 | 290.4 | 301.3 | 308.1 | 344.1 | 369.6 |
The majority of over-65s have $\geq 2$ conditions, and the majority of over-75s have $\geq 3$ conditions.

More people have 2 or more conditions than only have 1.
Polypharmacy

Patients on 10 or more unique medicines

Comparator Description: Percentage of patients prescribed 10 or more unique medicines
Numerator: Number of patients prescribed 10 or more unique medicines
Denominator: Total number of patients
Impact of new medicines
Increasing numbers of medicines used
Increasing age of the population

Future growth in medicines spend

Data source: HSCIC: Hospital Prescribing: England, 2015-16
Polypharmacy: negative health outcome

<table>
<thead>
<tr>
<th></th>
<th>2 medicines</th>
<th>5 medicines</th>
<th>&gt;=7 medicines</th>
</tr>
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<tbody>
<tr>
<td>Series1</td>
<td>13%</td>
<td>58%</td>
<td>82%</td>
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</table>
Under-prescribing

- Failure to prescribe medicine to treat disease or prevent disease
- Polypharmacy increases the chance of under-prescribing
  – The Treatment-Risk Paradox (Ko 2004)

Kuijpers (2007)
Inappropriate Prescribing

1 in 5 medicines inappropriate
Medicines Optimisation Support

Improved patient outcomes

Patient-centred approach

Principle 1
Aim to understand the patient’s experience

Principle 2
Evidence-based choice of medicines

Principle 3
Ensure medicines use is as safe as possible

Principle 4
Make medicines optimisation part of routine practice

Aligned measurement and monitoring of medicines optimisation

Polypharmacy Guidance
March 2015

“I feel a lot better since I ran out of those pills you gave me.”

Polypharmacy and deprescribing safely: a patient-centred method

Professor Nina Barnett

The Centre for Pharmacy Postgraduate Education

One system, one team, one you
Our Model for Improvement

Clear Aim
• What are we trying to achieve?

Measure well
• Data and metrics
• Patient, user experience

Change
• Rapid PDSA cycles
Continuous Quality Improvement

• Encourage creativity and innovation
• Be prepared to fail and learn
• Rapid roll out
Delayered Management Structure

- Me
- SCP
- Tech
- ATO

Doing the job

- Ideas
- Quick implementation
- Rapid Testing
- MDT discussions
- The right people having the right conversation

One system, one team, one you
Our Vision for Pharmacy

• Ensuring safe and optimal use of medicines for the people of Northumberland

• Integrating Pharmacy into existing and new structures/services across Northumberland

Medicines should be seen as an investment; not a cost
Northumberland Vanguard Pharmacy – Our drivers for care

- Enhance patient care through better integration of the Pharmacy Team
- Improve quality and safety with medicines
- Improve quality of care for patients
- Improve patient experience
- Better use of skill mix
- Increase capacity

Drivers for care:
- Foundation General Practice Pharmacists
- Acute Visiting Service & MDT
- Complex Patients & Care homes
- Community Pharmacy
- Integrate with secondary care

One system, one team, one you
A hub based approach

NORTH HUB

ASHINGTON HUB

BLYTH HUB

NSECH

WEST HUB

One system, one team, one you
Foundation GP Pharmacists Programme
Developing a workforce fit for purpose

• Pre-reg → General Practice
• Create integrated pharmacist roles to:
  – Create a future workforce
  – Improve medicines use
• Clinical training in acute and primary care
• Minimise impact on regional workforce
Our Integrated Model

- 1WTE per practice (other models negotiable) for 6 practices
  - Role split between hospital (backfilled by experienced clinical pharmacist)
  - Developmental
- 4 week rotation with buddy
- GP to co-fund (similar to GP pilots)
- F1 → F2 → Prescribing (or replace)
Increasing quality and capacity

Year 1
- Medication review
- Discharge reconciliation
- Care home reviews
- Clinical audit

Year 2
- Complex medicines clinics
- Manage QoF and/or therapeutic area
- Education & Training

Year 3
- Domiciliary visits
- Supporting acute patients or visit requests
The Foundation Pharmacist Project: developing new models of integrated pharmaceutical care

• 18 semi-structured interviews
  – FPs, GPs, nurse practitioners, administrative assistants, hospital pharmacy technicians, senior clinical pharmacists, and community pharmacists.

• General satisfaction with the role from all stakeholders
  – Capacity, patient safety

• Integration valued

• FPs are able to practice across care settings competently, supporting direct and indirect patient care

• Differences in the expectations of stakeholders between the type and quantity of work for FPs
“if somebody has been discharged, they will chase up secondary care, because they’ve got that in that we’ve never had and passing information on to get staff to do it, they do that side so that is useful, having that interface” – P8, GP

“I think the reduction in workload feels significant, I wouldn’t know how many patients per week, as it were, or how many hours per week it is reduced but, as much as the reduction in workload it is the reassurance that you know it is being done right” – P2, GP
Local Recognition

Pharmacists right at the heart of new model of health care

“It is really exciting to be at the forefront of something so new and innovative in the NHS. To feel like you are making such a positive difference by being proactive in reviewing patients and helping to avoid any problems that might arise from medication in future.”

Alastair Green, F1 GP Pharmacist

Published: 15:00 Tuesday 08 November 2016

A new way of training clinical pharmacists is underway in Northumberland as part of widespread work to improve the integration of health and care services between hospital, in the community and in patients’ own homes.
Enhanced Care for our patients

- Acute Visiting
- The MDT
- Complex Medicines Service
- Care homes
The evolving MDT

- Daily meeting
  - Initial enthusiasm → erratic attendance
  - No consistent GP cover
  - Scalable???

- PDSA 3
  - Reduce to weekly meeting
  - Rotate across GPs in hub
  - Pan-hub MDT every 2 weeks
Weekly MDT Meetings

- Acute Visits follow up
- Admissions Data
- Team referrals
- Hospital referrals
- GP ‘revolving door’ patients

One system, one team, one you
Services available to the MDT

• Support planners
• Loneliness (Red Cross)
• Telecare and teleassistance
• Social prescribing (exercise, ‘men in sheds’)
• Housing, finance
• Devices
Complex Medicines Service

- Identify → High impact patients →
  - GP visits, OOH, Hospital admissions
  - Polypharmacy
  - Local intelligence

- Action → Making sensible interventions
  - Shared Decisions
  - Medicines optimisation, deprescribing,
Skill Mixing and Caseloads

MDT and AVS
Risk Registers (High Risk, eFl)
Care homes
Hospital Referrals
Team referrals (GP, nurse)
Social care

Technician Caseload
- Medicines Rec
- Waste management
- Counselling
- Support

Pharmacist Caseload
- Complex patients
- Deprescribing

Escalate care
- GP
- Geriatrician
- Other health or social care professional

Relationships, Communications, Effective teams

One system, one team, one you
Timely Care – Northumberland SHINE+

- Identifying new and recently discharged patients
- → rapid technician led review

Patients identified → Technician review → Escalate Care

Pharmacist

Geriatrician/MDT

One system, one team, one you
Community Pharmacy

• Small clinical teams cannot achieve their goals at scale?
• We already have Pharmacy Infrastructure for care homes
• Integrating CP into the System
• “The whole is greater than sum of the parts”
Integrating Pharmacy

Pass it on
Let’s talk
Do it

Vanguard Pharmacists, Geriatricians, MDT
Vanguard team & Comm Pharmacy
Community Pharmacy MUR

One system, one team, one you
Integrating Pharmacy

• Do it
  – Withholding treatments
  – Stopping treatments (thiamine, forceval, cetirizine)
  – Sip feeds
  – Formulation switches

• Let’s Talk
  – BP management
  – Reduced antidepressant dose

• Pass it on
  – 3 diuretics
  – Multiple antipsychotics
Cumulative Patients Reviewed/Interventions
Keeping patients at home

223 potential avoided admissions
Potential savings

£0, £100,000, £200,000, £300,000, £400,000, £500,000, £600,000, £700,000, £800,000, £900,000, £1,000,000

QTR2 Jul-Sep 16, QTR3 Oct-Dec 16, QTR4 Jan-Mar 17, QTR1 Apr-Jun 17, QTR2 Jul-Sep 17

£900.5K saved
Interventions To Date

One system, one team, one you
Integrating Care

• Teams work across organisational barriers
• Behaviour change
  – Thinking about the patient journey
  – Taking care to the patient (home, care home or hospital)
• Frailty Assessment Service
Making Transfer of Care Safer

- Low Risk: Community Pharmacy
- Moderate Risk: Vanguard Tech or Telephone F/U
- High Risk: Vanguard Pharmacists

• Access to systems across organisations
  - Systm1, ETP from wards
  - Hospital systems in primary care
All this because...

✓ Dedicated & enthusiastic team of technicians and pharmacists
✓ Leadership from the coalface
✓ Relationships
✓ Senior team support
✓ Working across organisational barriers
✓ Challenge existing systems
✓ Data & metrics to drive improvements and support sustainable scaling up
Watch our film at www.health.org.uk/pills

“When we strive to become better than we are, everything around us becomes better too”

Paulo Coelho, The Alchemist