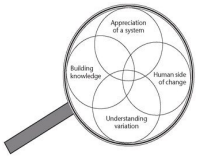
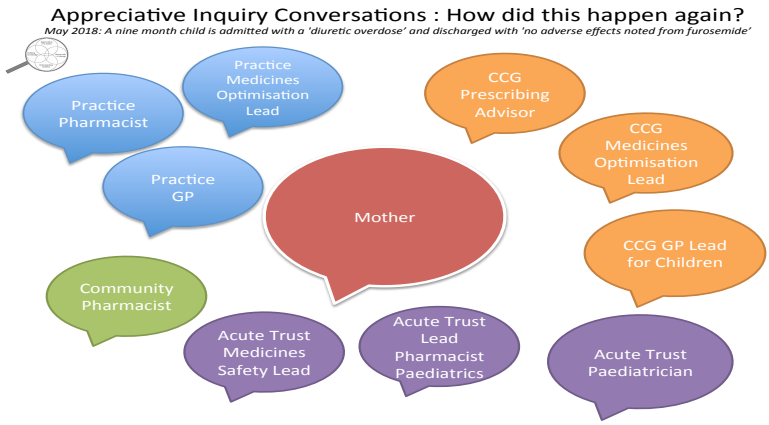


Vision for a Resilient Medicines Safety Culture in Primary Care Networks: Ethical Considerations for Commissioners and Providers in ELH&CP

"Every system is perfectly designed to get the results it gets." [1]

ABSTRACT

In May 2018 a nine-month child was accidently given an overdose of furosemide by his mother. An appreciative enquiry approach was used to process map this incident. Conversations with everyone involved revealed opportunities to prevent the error, as the risks of using different formulations of the same medicine in primary and secondary care were already well known. This raised the question about current methods for capturing and learning from medicines harms. The purpose of this paper is to demonstrate, using the improvement science lens, that there is already information in the system available to help commissioners and providers minimise medication errors. Instead of introducing new methods of capturing medication errors or technical strategies to improve safety, which have balancing effects on the system, rather what is needed is a shift to strengthening human factors and relationship based learning. Primary care networks are an ideal opportunity to test system learning from significant events through multi-disciplinary reflective learning with commissioners so that **the World Health Organization (WHO) challenge to every health system to halve severe and avoidable harm caused by medicines by 2022**[2] **can be achieved.**



1. **Appreciation of a system**

- **CLIMATE / ENVIRONMENT Level:** Pharmaceuticals are new class of environmental contaminant[3]. 73 million inhalers are used in the UK every year and over 63% are placed in domestic waste bins after use, most ending up in landfill or the sea[4]. Need to include recycling[5] and identify green practice/network measures[6].
- **Macro Level:**
  Medication errors: 237 million/Year occur at some point in the medication process (England); **66 million/year potentially clinically significant errors;** 71.0% primary care where most medicines in the NHS are prescribed and dispensed). Errors more likely in: Older people; presence of co-morbidity; with poly-pharmacy. Adverse Drug Reactions (ADR) in Primary care result in hospital admission and in Secondary care lead to longer hospital stay. NHS costs of definitely avoidable ADRs: £98.5M/year and181,626 bed days[7]. Yellow Card decline in reporting[8] ADR and ADR are now estimated to be the 14th leading cause of morbidity and mortality in the world, putting patient harm in the same league as tuberculosis and malaria[9].
- **Meso Level:**
  Medication error at the primary secondary care interface: costs, causes, consequences[10]
  National Reporting and Learning System (NRLS)[11]: Acute Trust data only – how is the system learning from NRLS data?

Organisation name	Degree of harm	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19
BARTS HEALTH NHS TRUST	No harm	1,027	2,788	3,100	3,515	2,615	2,383	2,389	2,595	2,137	2,071	2,286
	Low	78	346	344	390	271	224	257	270	223	184	274
	Moderate	19	29	29	32	13	20	12	27	13	18	16
	Severe	2	5	5	1	6	2	6	11	3	5	8
	Death	0	2	5	2	2	5	1	6	3	4	2
	Organisation Total	1,126	3,170	3,483	3,940	2,907	2,634	2,665	2,909	2,379	2,282	2,586
EAST LONDON NHS FOUNDATION TRUST	No harm	401	499	544	638	518	825	404	524	489	411	465
	Low	113	140	169	178	234	210	110	150	91	94	125
	Moderate	4	7	63	1	67	146	28	67	55	50	23
	Severe	1	0	0	2	2	3	0	0	1	1	0
	Death	6	6	5	6	7	11	7	16	2	9	11
	Organisation Total	525	652	781	825	828	1,195	549	757	638	565	624

- **Micro Level:**
  - Serious Incidents - high threshold (CCG), very few recorded
  - How do we learn from patients? Patient Participation Group experience and feedback from SEA, Complaints? PPG involvement? Learning isolated in practices need mechanism for spread of lessons
  - Openprescribing[12] data base if used for savings and improvement may identify areas of risk in practices
  - CEG PROMIS[13] (Sulphonylurea, NSAID, anti-coagulants) – EMIS severity alerts in place – how many warnings are bypassed on Scriptswitch[14]?
  - EQUIP (Tower Hamlets QI) – QI projects to improve system learning from medicines errors?

2. **Human side of change**

- **Roles and Goals:** who has responsibility for medicines optimisation? GP? Practice Pharmacist? Practice Medicines administrators? Patients?
- **Staff -** Blame culture has resulted in a demoralised demotivated workforce[15]. Need to move to *Learn not Blame*[16]. Now need to develop a resilient safety culture based on recognition of system complexity – moving to System Safety II[17]. People have **three core needs** that must be met in the workplace to ensure safety[18]. They are the needs for belonging, competence and autonomy. When these needs are met in the workplace, people are more intrinsically motivated and have better health and wellbeing. The need for **belonging** refers to the desire or need to feel and be connected to others – to care and to be cared for. The need for **competence** reflects our need to be able to have a positive effect on the work environments we find ourselves in, as well as to get valued outcomes (to deliver high-quality care). **Autonomy** refers to having free will, choice and control in order to be consistent with our sense of our self (as a health care professional).
- **Patients** - "**Every decision about me, with me'** (Dynamics of dignity and safety[19]); Patient Participation Group - harness potential to coproduce response to medicine related complaints and SEA; Shared Decision making[20] Choosing Wisely[21]

3. **Understanding variation**

How do we know where the medicine safety problem is in the system?

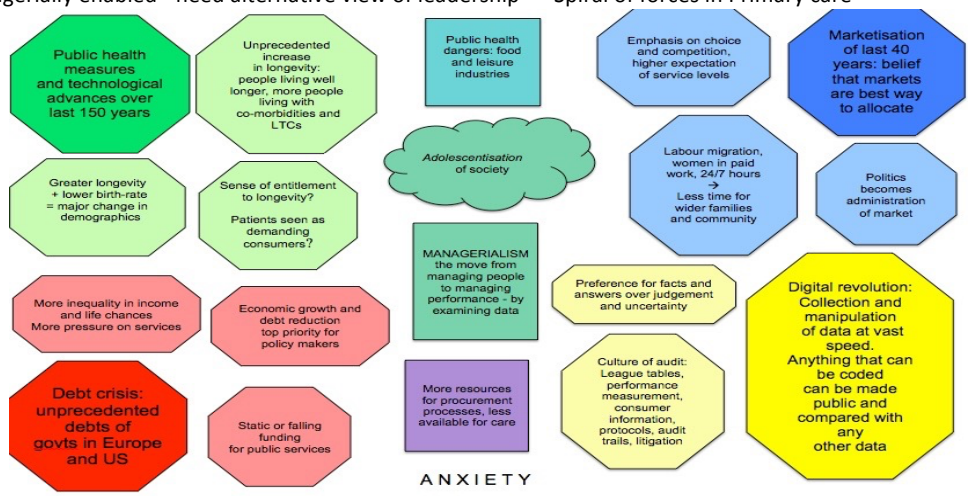
- CQC data – how to share this currently between practices at a PCN level? CQC Report on Medicines in Health and Adult Social Care[22]. Note Varying PCN models – five possible structures for PCNs, includes one model with a 'possible need for CQC registration'[23]
- Possible Tools for measuring ADR – RADAR[24]/DATIX[25]/Ulysses[26]/ IHI Trigger Tool[27] /PINCER SMASH[28]/ Cumulative Toxicity Tool and sick day rules[29] for identifying ADR. Or simple rules of thumb can be applied i.e. > 7 drugs =80 % risk of **Serious** ADR[30]
- QOF[31] Prescribing safety QI001: The contractor can demonstrate continuous quality improvement activity focused upon prescribing safety as specified in the QOF guidance – worth 27 points. QI002: The contractor has participated in network activity to regularly share and discuss learning from quality improvement activity as specified in the QOF guidance. This would usually include participating in a minimum of two peer review meetings – worth 10 points.

4. **Building knowledge** from Medication Errors

Resilient PCN with a shift to **qualitative evidence informed system learning and commissioning**. Doing more to improve medicines safety for patients in the NHS[32]. Multifaceted approaches have each led to reduction in error[33] Methods for error reduction included in this review are a "**Just Culture,"** increased transparency and accountability, error reporting and investigation, second-victim programs, training in quality and safety methods, standardization and bundles, electronic health records, computerized order entry, barcode scanning, clinical decision support, predictive analytics, and situational awareness. Newer fields with the potential to improve patient safety include human factors engineering, indication-based prescribing, and Safety II. Scottish patient safety programme: Pharmacy in primary care[34]. The project aimed to strengthen the contribution of community pharmacy and improve communication within the primary care team. Established improvement tools and approaches were introduced, focused on high-risk medicines, **safety culture** and medicines reconciliation. Initiatives included: a high-risk medicines care bundle for either warfarin or non-steroidal anti-inflammatory drugs; a pharmacy safety climate survey; and a medicines reconciliation care bundle.

5. Leadership in complex systems

Clinically led and managerially enabled - need alternative view of leadership[35] - Spiral of forces in Primary care

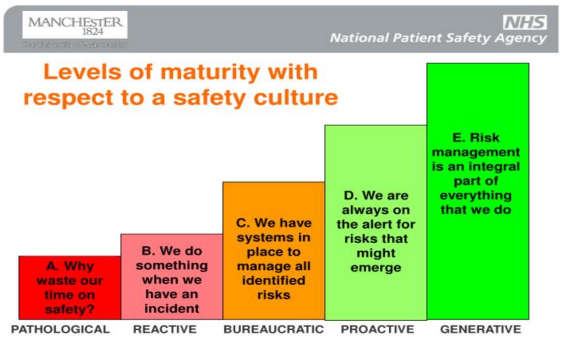


SUMMARY

- **Aim** to improve system resilience through system learning around medicine **hand-overs / 'hand-offs'** in Primary Care Networks (PCN) in North East London characterised by either blanket or pocket social disadvantage/deprivation (Primary care networks and the deprivation challenge. Are we about to widen the gap?[36]). Patients in deprived areas with complex problems consult more often[37] **feel less enabled and their doctors feel more stressed**[38] after consultations. **Why this matters** is because there is a need to take account of the workforce complexity in: proliferation of other roles (GP Locum, Sessional GP, GP Partner, Physician Associate, other); low morale; increase scarcity of expert generalists in the system; part-time working[39] without team based approaches to relational continuity of care and risk of personal blame for system errors[40].

- **A change will be an improvement** if there is consistent positive feedback about medicines safety from PCN staff, in particular locum/bank staff, through: quarterly staff surveys measuring 'belonging, competency and autonomy'[41]; using for e.g. resilient index[42] or PCN maturity index measures (MaPSaF)[43]

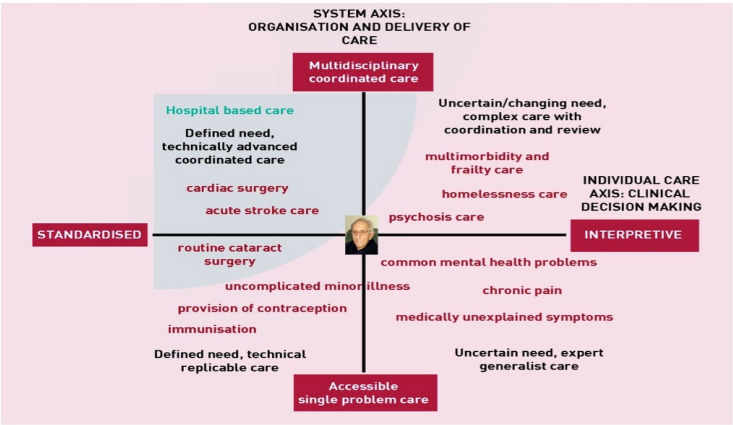
Example Resilience Index



Example Maturity Index

- **Changes to be made are through:** regular PCN medicines process mapping including community pharmacists, to identify the number of and minimise handovers/hand offs; quarterly reflective learning forums where Case review/ Significant Event Analysis is done with a case from each of the population groups to be inspected by CQC[44] and/or Life Course Streams (as per the NHS10 year Plan] to be brought by each of the practices in the PCN and to identify non-pharmacological options/social prescribing [e.g. Singing for breathing COPD[45]]. Cases can be identified through tools such as: RADAR/DATIX/Ulysses/ IHI Trigger Tool for ADR. Noting that all these tools, if adopted, generate high volume data and can be of limited value as they are resource-intensive to process. Data collection to be resource sensitive and align with data needs for CQC and personal GP Appraisal.
- **Consensus**[46] **is needed on the role of Expert Generalists/GPs and the purpose of primary care**[47], which is to keep people, including ourselves, **healthy, happy and safe** whilst **managing uncertainty and coproducing care through the Life Course** (GMC Domain 4: Maintain Trust) and direction towards Era 3 Medicine and Health Care[48] (Moral Era) through kinder cultures[49]

Managing Uncertainty and Coproduction of Care



Realising the full potential of primary care: uniting the 'two faces' of generalism. BJGP 2017
Joanne Reeve and Richard Byng

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Autonomy is to ensure everyone feels they have voice and influence (including community groups, patients and carers) in the genuine co-design of services and management of the organisation. This means moving away from excessive hierarchy and encouraging collective leadership. And it requires ensuring that staff feel their organisations are just and fair places to work where procedures are transparent and fair (with regards to promotion, rewards and challenging assignments, for example) especially in relation to discrimination. **Belonging**- nurturing cultures and climates that reinforce the sense of relatedness: having a clear, enacted and shared vision focused on the delivery of high-quality and compassionate care; aligning all efforts around that vision; creating commitment among staff by leading and managing them in a way that ensures trust, motivation and positivity and building effective team and inter-team working throughout the system. Ensuring inclusive and compassionate leadership at every level. **Competence** is met when workloads do not exceed the ability of staff to deliver high-quality, safe and compassionate care. It is also ensuring that staff have enabling and supportive supervisory support, focused on removing the obstacles in the workplace, rather than creating directive, controlling the culture of 'holding to account'. Help people grow, develop and learn so that their skills and competence are constantly improving throughout their careers.
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