

STRATEGIES TO IMPROVE MEDICINES SAFETY

Lynn Weekes

2016

OUR GOAL

- ▶ To deliver care that is
 - Safe
 - Effective
 - Patient-centred
 - Timely
 - Efficient
 - Equitable

WHY IS IT IMPORTANT?

- ▶ Medication most common medical intervention
- ▶ More errors and adverse events than other aspects of care
- ▶ 50% errors are preventable

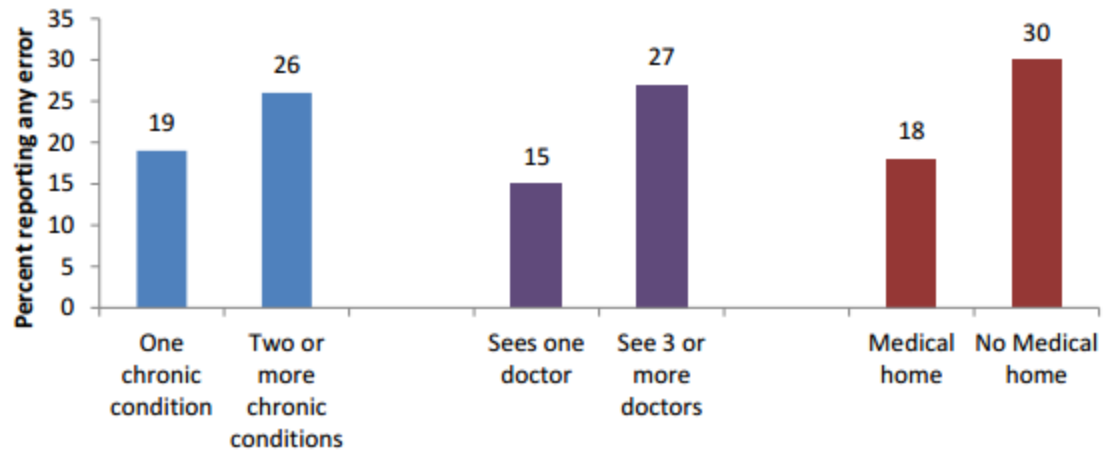
HOW BIG IS THE PROBLEM?

Multiple medication use is common

2-3% of all hospital admissions are medicine related

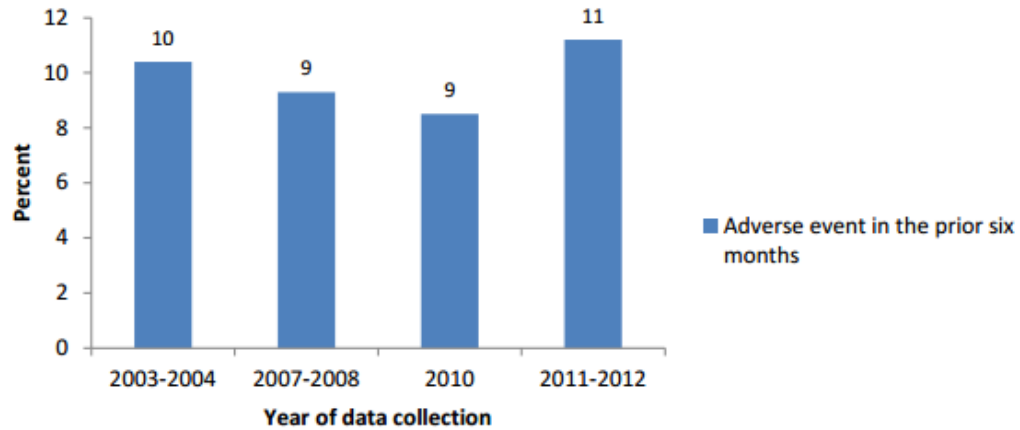
12% medical admissions

20-30% medical admissions for >65 years olds



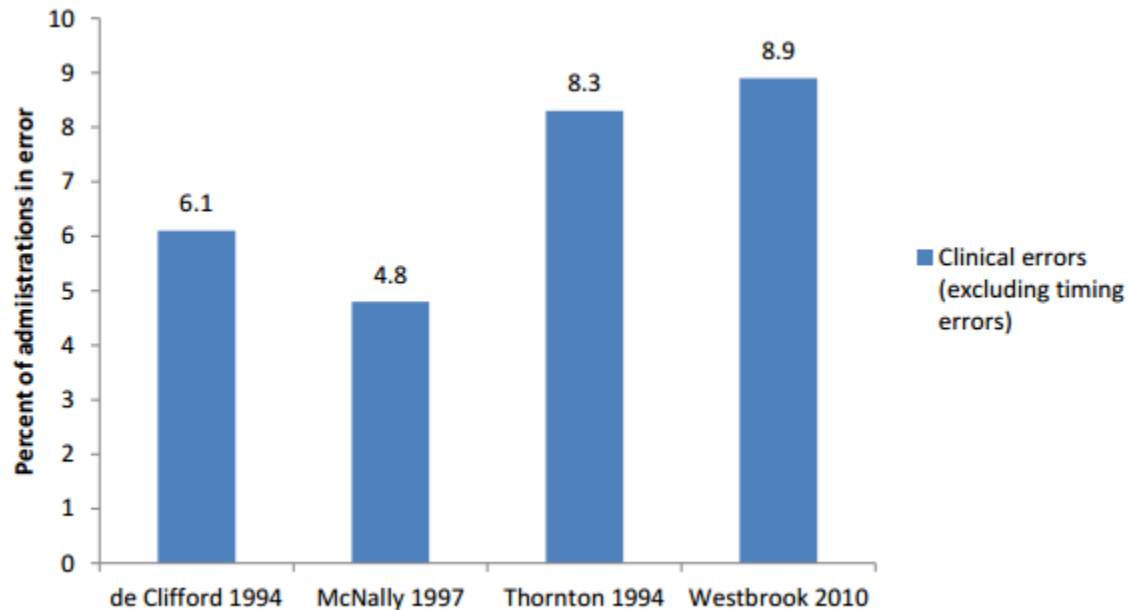
Percentage of patients with self-reported medication or medical error in the previous twelve months

(Source: Schoen et al. 2007)



Percentage of patients attending general practice experiencing an adverse medication event in prior six months

AND ONCE YOU GO TO HOSPITAL



**Medicine administration errors in hospitals
(individual patient supply systems)**

HIGH RISK

- ▶ Oncology
- ▶ Anticoagulants
- ▶ NSAIDs
- ▶ Opiates
- ▶ Antimicrobials
- ▶ Older people



HOW CAN WE REDUCE ERROR?

- ▶ Practitioners
- ▶ Regulatory agencies
- ▶ Implementation in health care settings

PRESCRIBING

- ▶ Standardised ordering
- ▶ Standard Treatment Guidelines
- ▶ E- prescribing

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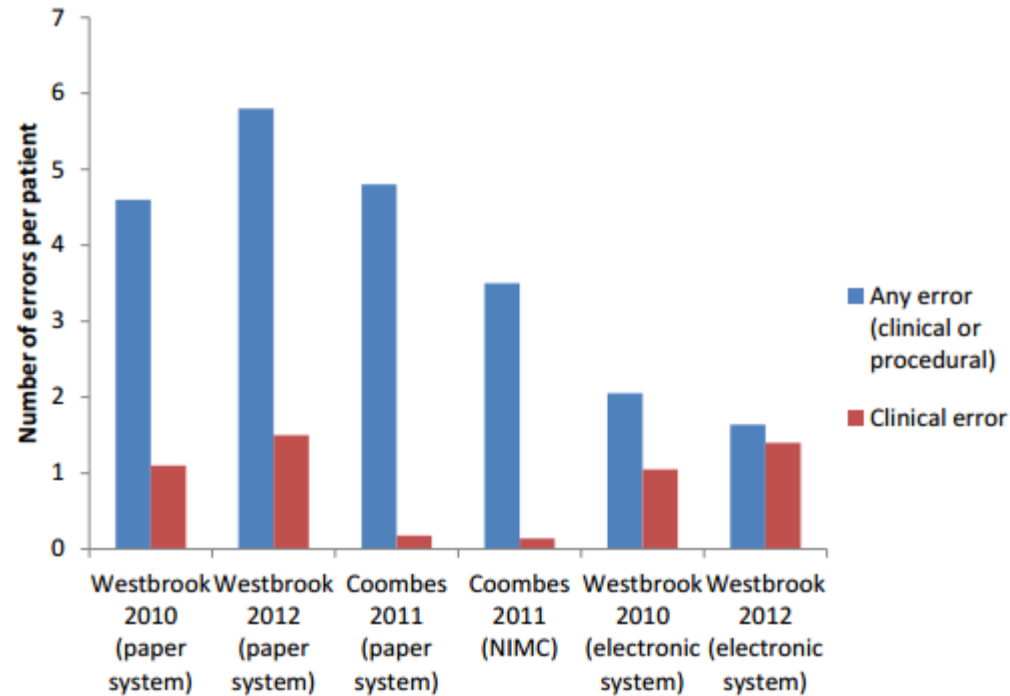
"I'm prescribing a squiggly line, two slanted loops,
and something that looks like a P or J."

NATIONAL INPATIENT CHART

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------------|-------------------------------|--|--|-----------------|--|--|--|--|----------|--|--|----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| YEAR 20 _____ | | DATE & MONTH → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DOCTORS MUST ENTER administration times → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Date | Medication (Print Generic Name) | | | | | | | | | | | | Tick if Slow Release | | | | | | | | | | | | | | | | | | | | | | | | |
| Route | Dose | Frequency & NOW Enter Times → | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Indication | | | | | | | | | | Pharmacy | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prescriber Signature | | | | | Print Your Name | | | | | Contact | | | | | | | | | | | | | | | | | | | | | | | | | | | |

National Inpatient Medication Chart

E-PRESCRIBING LESS RISKY



Prescribing errors from paper-based and electronic systems

DISPENSING

- ▶ Standardised processes
- ▶ Dispensing systems, robotics
- ▶ Tall man lettering
- ▶ Improved labelling and packaging

SOUND ALIKE, LOOK ALIKE

The FDA and Institute for Safe Medication Practices (ISMP) list of recommended Tall-Man Letters:

- [acetaZOLAMIDE](#) vs. [acetoHEXAMIDE](#)
- [buPROPion](#) vs. [busPIRone](#)
- [chlorproMAZINE](#) vs. [chlorproPAMIDE](#)
- [clomiPHENE](#) vs. [clomiPRAMINE](#)
- [cycloSERINE](#) vs. [cycloSPORINE](#)
- [DAUNOrubicin](#) vs. [DOXOrubicin](#)
- [DOBUTamine](#) vs. [DOPamine](#)
- [hydrALazine](#) vs. [hydrOXYzine](#)
- [TOLAZamide](#) vs. [TOLBUTamide](#)
- [vinBLASStine](#) vs. [vinCRISStine](#)

ADMINISTERING

- ▶ Improved labelling and packaging
- ▶ Smart pumps
- ▶ Better distribution processes with fewer interruptions
- ▶ Standardised ordering (eg fewer abbreviations)



HOW TO IMPLEMENT

NATIONAL IMPLEMENTATION

- ▶ Labelling and packaging
- ▶ Brand names
- ▶ Medication administration charts



COMMUNITY AND OUTPATIENT

- ▶ Dose administration aids
- ▶ Documentation of clinical interventions
- ▶ Staged supply
- ▶ Medication review
- ▶ Patient medication profile / medicines list

IN THE COMMUNITY

- ▶ Home medication reviews
- ▶ Medschecks
- ▶ New medicines support service
- ▶ MedicinesLine / Adverse medicines event line



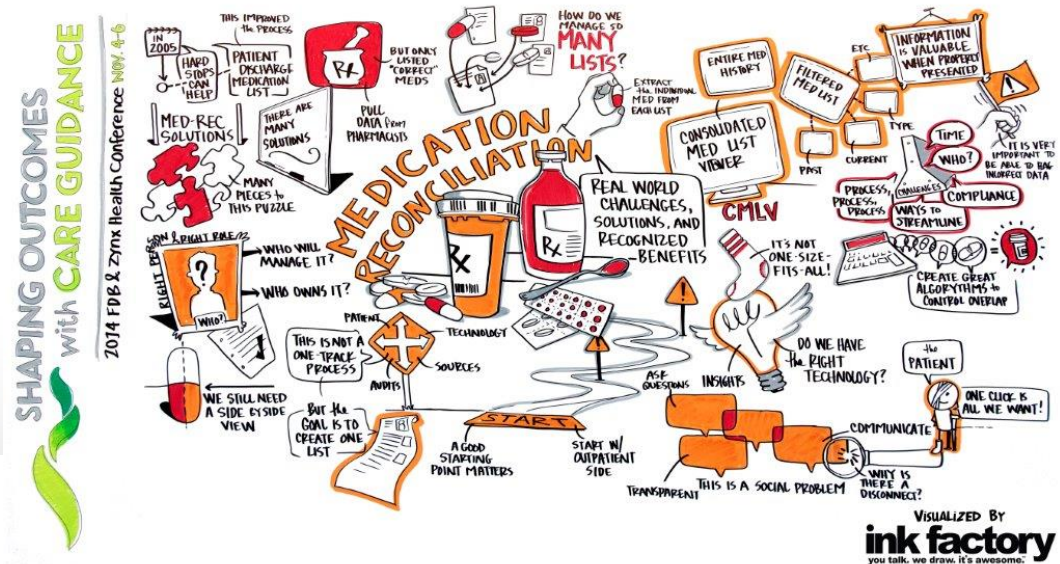
HOSPITAL IMPLEMENTATION

- ▶ Medication reconciliation /clinical pharmacy
- ▶ Medication alerts
- ▶ Storage; preparation; fool proofing
- ▶ Standardised ordering



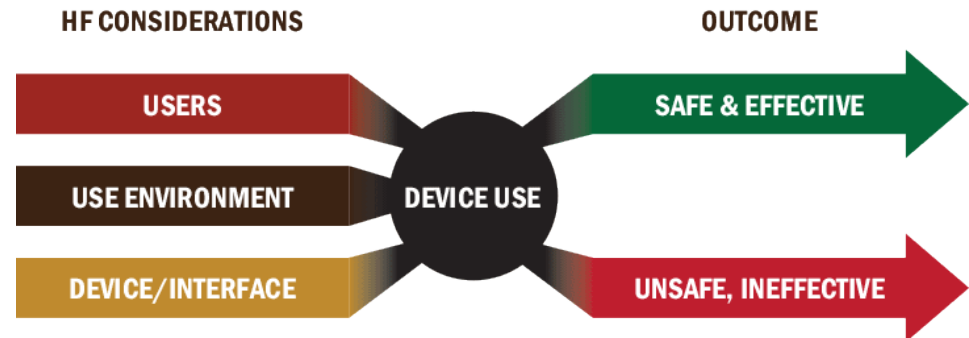
TRANSITIONS OF CARE

- ▶ Medication reconciliation
- ▶ Well timed medication review
- ▶ Clinical pharmacy in discharge planning
- ▶ Communication with primary care professionals



WORKFORCE AND CULTURE

- ▶ Patient, carer and family engagement
- ▶ Human factors engineering



- ▶ Reporting errors and acting on patterns
- ▶ PDSA cycles



INTERVENTIONS AND EDUCATION

- ▶ Orientation and induction programs
- ▶ Online learning
- ▶ Local committees and feedback
- ▶ Sharing experiences



IN SUMMARY, AT THE HEART...

- ▶ Standardisation leads to improved safety and service excellence
- ▶ Data and evaluation are critical for a learning system
- ▶ Sharing successes and failures helps us all

Prescriptions



**“I’ve been taking this medication for 50 years
and I’m going to sue! The side effects
made me wrinkled, fat and bald!”**