Ward Pharmacy – the final frontier

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The New Royal Liverpool Hospital

- part of major NHS service revision in Liverpool
- PFI build with £500m budget
- to open in 2015
- 700-800 beds, 100% single rooms
- for unplanned, specialist and cancer care
- Public Sector Comparator design complete
- public consultation under way
- opportunity for revision of Pharmacy service
Drivers for change

- opportunity of new PFI hospital design
- government targets (PbR, 18wk etc.)
- need to reduce length of stay
- desire for near-patient service delivery
- medicines management agenda
- anticipated therapeutic advances
Facilitators of change

- our business change history
- patients’ own medicines & meds lockers
- dispensing for discharge (1-Stop)
- automation & e-trading systems
- expanded/ extended staff roles
- ward-based teams
Ward medicines management principles

• patient medication locker
• clean utility room on each ward
• shared medicines store per 2 wards
• twice daily direct-to-ward deliveries
• pharmacy staff at least 12 hr presence
Shared medicines store (14)

- supports two standard wards or one specialist area e.g. ICU
- secure controlled access
- automated storage
- hold up to 2000 lines/ packs
- shelving for IV fluids
- integrated database of all storage areas
- stock levels driven by medicines usage
Floor area 20 sqm

- Robotics
- Fridges
- Fluids
- PC station
- Flammables
Clean Utility Room

• for “running” stocks of generic non-patient–specific items only
• two large double steel cupboards
• one large single steel cupboard
• under-bench pharmacy fridge
• small flammables cupboard
• NO medicines trolley
Meds Store

Clean utility

Ward 1

Ward 2
A vestigial pharmacy

- goods receipt area for delivered boxes
- small dispensary for OPD dispensing
- storage for clinical trials and “specials”
- central bulk IV fluids storage
- aseptic unit
- Medicines Information
- office accommodation
Benefits

- focused near-patient service
- pharmacy staff fully integrated into ward team
- properly designed medicines storage
- improved stock control
- medicines stored match ward activity
- very responsive medicines supply
- improved medicines management
Risks

• automation provision
• IM&T aspects
• culture change
• staff numbers & skill mix
• de-skilling of staff and loss of skills
• non-pharmacy shift periods
• supply chain
Ward-Based Automation

• different context to dispensary
• less controlled environment
• accommodate large range of items in small quantities
• operation by nursing staff
Ward automation options

- arm-pickers (Speedcase, Pack-Picker, Mach 4, Apostore)
- channel systems (Consis, Robopharma)
- cabinet systems (Pyxis, Medi-365, Omnicell)
- cupboard systems (ServeRx)
Arm-pickers

- automated loading and picking ++
- manual pick capability +
- in-line labelling possible +
- familiar to pharmacy +
- service maintenance overhead -
Channel systems

- automated picking +
- assisted manual loading (rear) -
- manual pick capability +
- familiar to pharmacy +
- pack-size maintenance overhead -
- service maintenance overhead -
- in-line labelling ?
- product range constraints ?
Cabinet systems

- assisted manual loading
- semi automated picking
- flexible storage options
- pack-size maintenance overhead
- unfamiliar to pharmacy
- more prone to user pick error?
- labelling possible?
Cupboard systems

- manual loading
- manual picking with double handling
- flexible storage options +/−
- integrated EPMA system +/−
- unfamiliar to pharmacy
- labelling possible?
Choice criteria

- mixed automation in combination ??
- space & product range/qty fit
- interfacing with other IM&T systems
- ease of use & performance
- maintenance overheads
- capital & revenue costs
- reference sites
RLBUHT Choice

• *considering* mixed automation
• awaiting dependent decisions
• design specification in progress
• don’t call us, we’ll call you ….
Summary

• decentralisation will radically change hospital pharmacy service delivery
• automation is a key factor
• it will bring a major culture change
• it will fully realise our goal of patient-centred Medicines Management
• You can't be serious!!

• What do you mean?

• How about?

• Questions