



Timely access to medications for patients is a key component of medication safety in CHB. This is particularly challenging outside normal working hours as there is no on-call Pharmacy service. Access to medications out-of-hours (OOH) relies on access by the site manager to the pharmacy department. OOH access to pharmacy has been on the hospital risk register since 2017.

1. Baseline OOH access was measured and quantified. (Feb 2017, see *figure 1*) Database was created to record access frequency and items taken.
2. Proposal to pilot an ADC for OOH access (see *figure 3*) Established and implemented in July 2019, stocking ~ 650 product lines (informed from OOH database)
3. To ensure visibility of content of ADC a stock-holding database was created (see *figure 2*). Evolved to a stock-holding database for every ward in the hospital.
4. Measured a number of outcomes:
 - Frequency of access to medicines OOH
 - Quantity of items accessed OOH
 - Amount of time spent by the Site-Manager in Pharmacy
 - Drug availability at patient level

Figure 1: Items dispensed OOH

Figure 2: Stock-holding database

Figure 3: Automated Dispensing Cabinet (ADC)

OOH Database	ADC	Stockholding database
<ul style="list-style-type: none"> • Excel database • Recorded frequency and items taken from pharmacy. • Cross-referenced to ward stock-lists. • Analysed after 47 weeks to provide information for business case. • Continued to record to assess impact of ADC and stockholding database. • Recorded time spent by site manager over six weeks 	<ul style="list-style-type: none"> • Business case • Installation and set-up (Location, network, air-control) • User training. Super-users & users. • Stock decisions, quantities. • New process developed for restocking, reporting, expiries, validation and stock-charging. • Number of items accessed from ADC OOH measured for six months 	<ul style="list-style-type: none"> • Excel database. • All product lines stocked in ADC and each clinical were included. • Critical medicines stocked only in Pharmacy were included. • Search function enabled, multiple users allowed at one time and accessed via a shared drive (shortcut on clinical pc's) • Education provided with user set up on ADC. • Number of items accessed OOH collated three months pre and post implementation.

Outcome	Pre-intervention (s)	Post-Interventions (s)	Impact
No. of medications accessed OOH	65 lines per week.	38 lines per week.	41.5% reduction
No of times pharmacy was accessed OOH	5.125 per week	3.96 per week	23% reduction
No. of items removed from pharmacy OOH	61.2 items per week	12.6 items per week	79% reduction
Site-manager time spent accessing Pharmacy	2.0 hrs per week	0.41 hrs per week (24 minutes)	1.58 hrs reduction (1 hr 36 minutes)
Percentage of omitted doses due to drug availability at patient level/ 24 hrs.	16.3%	9.7%	Reduction of 6.6% (p value 0.04)

- **Pilot period of three months proven to be successful across a number of measures (Nursing, management, patient & pharmacy level)- approval for ADC continuation.**
 - **Potential being explored for other clinical areas.**
 - **OOH database continuing to assess value over a longer period.**
 - **Continuing to streamline stock-level and product lines.**
 - **Training continues for new staff members.**
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- <https://www.nhs.uk/gps/evaluation/out-of-hours-medication-service-general-hospital-and-introduct>