Emergency Care Improvement Programme

Safer, faster, better care for patients

NHS Improvement

Rapid Improvement Guide to:

Optimising medicines discharge to improve patient flow

How clinical pharmacy services are delivered underpins the five key principles of optimising medicines discharge. These services can include but are not limited to:

- Pharmacist prescribers in admissions units and wards.
- Pharmacists or pharmacist prescribers writing discharge prescriptions. This can be done on one stop ward rounds to prevent batching (see SAFER patient care bundle).
- Pharmacists working hours in acute medical units matching work demands and patient flow into and out of acute units.
- Near patient pharmacy discharge teams.
- Pharmacy technicians/dispensing assistants embedded in ward teams to improve communication, counselling and supply.
- Pharmacy staff on board rounds.
- Pharmacy workforce hours which reflect decision making times on the ward e.g. start at 8am if the board round starts at 8.30am.
- Pharmacy pre-admission clinics.
- Seven day clinical pharmacy services to high admission/discharge areas to reduce delays to discharges over the weekend and on Mondays.

Principle 1 – Consider the need for medicines supply at discharge	**Measure**
■ Use patients' own drugs (PODs) including supplies of medicines at home. ■ Encourage patients and carers to bring PODs into hospital. ■ Ensure PODs are transferred with the patient e.g. green medicine bags. ■ Develop an agreement where patients admitted for 48hours or less or those with long-term conditions do not require a prescription for discharge medicines unless there are changes or immediately required medicines e.g. antibiotics or analgesics. ■ Consider a policy where over the counter (OTC) medicines are supplied for discharge only in exceptional circumstances. ■ Advise patients at pre-op clinic and in pre-op literature to bring a supply of their own medicines and to have a supply of simple analgesia at home. ■ Consider using FP10HP prescriptions for discharge medicines out of pharmacy hours.	% of patients bringing own medicines into hospital. % of PODs used for discharge.
Principle 2 – Start preparing for discharge at admission (or pre-admission if elective)	**Measure**
■ Reconcile medicines and prepare for discharge as soon as possible following admission. Consider drafting the discharge prescription at admission. ■ Supply patients with medicines labelled for discharge from admission (one stop dispensing). ■ Supply from pharmacy at point of discharge should be seen as the exception. ■ Use the summary care record, community pharmacy records and local record sharing IT solutions. ■ Identify medicines changes throughout a patient's stay and be ready to communicate these at discharge. ■ Standardise all post-operative treatment; have pre-printed prescription stationery or electronic order sets and use overlabelled medicines.	% of patients who have had a medicines reconciliation within 24 hours of admission.

Principle 3 – Reduce discharge prescription and medicine processing time (as the patient experiences it). Think minutes, not hours, from decision to discharge to the patient leaving.	**Measure**
■ Work closely with wards and supply required discharge medicines as soon as the decision to discharge is made. **Think minutes, not hours.** ■ Use near patient dispensing in high flow/high discharge areas (hubs, satellites, trollies). ■ Anticipate discharge and encourage junior doctors to write discharge prescriptions the day prior to discharge (see SAFER patient care bundle). ■ Use integrated inpatient and discharge electronic prescribing (ePMA) to improve accuracy and speed. Use it to alert pharmacy when a TTO is written. ■ Set and hold staff to account for internal professional standards that discharge medicines will be with the patient within a certain time frame. ■ Do not alter medicines at the point of discharge unless there is a good clinical justification to do it immediately. Instead ask the GP to do it. ■ Pharmacy processes must allow early transfer of patients to a discharge lounge. ■ Encourage use of Expected Discharge Date (EDD) on wards and work to this. ■ Use 'pre-packs' for common discharge medicine items that nursing staff can dispense. ■ Allow over-labelling of ward stock. ■ Ensure the ward can 'bleep' pharmacy - this number should remain constant for the ward and a rapid response should be given.	Use end to end data (not just what happens in pharmacy). Collect time stamped data at each point in the process. See March 2016 edition of Journal of Medicines Optimisation available at www.pharman.co.uk (registration required) for good example of data points to collect.
Principle 4 – Separate streams for urgent work and non-urgent work i.e. discharge medicines and routine work (with flexibility to respond to increased demand).	**Measure**
■ Ensure discharge medicines are seen as urgent work and have priority over routine work. ■ Make the process 'First In - First Out' for each stream. ■ Set a maximum process time for urgent and non-urgent work. ■ Use visual management e.g. red trays for urgent work, red bags for completed urgent work. ■ Avoid batching and bottlenecks which cause the streams to get mixed up. ■ Work with portering services to ensure discharge medicines are not batched. ■ Make use of pneumatic tubes where available to return medicines to clinical areas.	% prescription items dispensed as urgent % TTOs dispensed near patient % TTOs written day before discharge % TTOs dispensed within maximum time

Principle 5 – Just try it! Make it clear to teams that they don't need permission to try new things.

- Use rapid cycle Plan – Do – Study - Act (PDSA) testing or other similar methods to rapidly implement and test the changes. (make an effective process more efficient)
- If your process is not effective then you may want to use different improvement methodology to redesign it – but whatever you do should be done at pace and can be refined using PDSA.
- Establish a project group which can feed in to the appropriate committee for governance (project group should be agile with the ability to make rapid decisions regarding the project).
- The project group should meet regularly e.g. weekly so changes can be made quickly.
- Be clear about what is being measured and by whom, with clear aims for the project e.g. reducing the time from the discharge prescription being written to being with the patient to a mean time of 45 minutes over a four week period.
- Influence ALL aspects – not just the pharmacy part.
- If changes to workforce hours are needed to test some of the changes – request volunteers.
- Examples of those who may be involved in the project group:
  - Clinical services/site pharmacist or pharmacist lead for the service area.
  - Staff representative of those making the changes e.g. pharmacy assistants, technicians, pharmacists.
  - Dispensary manager (if impacts on dispensary).
  - Service improvement specialist/Trust Project/Programme Management Office (PMO).
  - Ward manager/matron depending on clinical area.
  - Consultant if relevant.
  - Estates if relevant e.g. if establishing near patient dispensing hubs.

Case Studies

Shift working pharmacists on Medical Assessment Units (MAU) Nottingham University Hospitals NHS Trust	Claire.Patel@nuh.nhs.uk
What was the challenge?	■ Too many patients to be reviewed by one pharmacist on the admission ward. ■ Support required by medical and nursing teams for medication related issues. ■ Patients arriving on base wards without medicine reconciliation completion.
What they did.	■ Reviewed MAU pharmacy staffing levels and shifts so MAU has a pharmacist working from 8am until 8pm on a shift system. ■ Dispensary on the MAU for near patient dispensing.
What were the results?	■ Medicines reconciliation at 100% for patients admitted to MAU. ■ Pharmacists integrated into medical teams, attending ward rounds and providing timely advice for medicines optimisation. ■ Discharge times significantly improved due to involvement in writing TTOs and dispensing on the ward; unintentionally omitted meds also significantly reduced.
Other information	■ Pharmacists are supported by Medicines Management Technicians and a Medicines Management Assistant.

Implementing and improving the re-use of PODs North Bristol NHS Trust	Andrew.Davies@nbt.nhs.uk
What was the challenge?	■ No Trust-wide systematic use of PODS leading to waste and medicines safety issues.
What they did.	■ PDSA to spread practice - from 2005 PODs were used systematically on ALL wards. ■ Technicians process all PODs. Discharge technicians discuss with patients/carers 'patients own drugs at home' - taken into account when discharge medicines supplied to patients. ■ Avoids waste from supplying unnecessary medicines and reduces confusion for patient (by supplying different brands to that the patient already has at home and risk of patients double dosing).
What were the results?	■ In 2012, the Trust had 71,451 in-patient admissions and saved £659,541 (approximately £10 per patient).
Other information	■ Data presented as run charts so progress could be seen over time. ■ Trust continued to monitor savings from PODs over a 20 year period but no longer records this data as now part of normal practice.

Pharmacist prescribing TTOs and satellite pharmacy Lancashire Teaching Hospitals NHS Foundation Trust	Gareth.Price@lthtr.nhs.uk
What was the challenge?	■ High prescribing errors, poor communication with GPs about medicine on discharge, poor timeliness of discharge process.
What they did.	■ Pharmacist prescribing and near patient dispensing.
What were the results?	■ Prescribing errors on TTOs reduced from 22% (doctors) to 0.7% (prescribing pharmacists). ■ Patients with medicine changes accurately captured in TTO increased from 46% (medics) to 99% (pharmacists). ■ Average time from patient told they can go home to leaving ward reduced from 8.5 hours to 5 hours (time to accurate prescription reduced from 4 hours to under 1 hour), and time to discharge medicines ready on ward reduced from 3 hours to 20 minutes.
Other information	■ Full details can be found at in the March 2016 edition of Journal of Medicines Optimisation available at www.pharman.co.uk (registration required). ■ This data was collected on acute medical wards. Data is being collected on surgical wards currently which indicates a similar impact.

Mobile dispensing trollies North Bristol NHS Trust	Andrew.Davies@nbt.nhs.uk
What was the challenge?	■ TTOs being sent to pharmacy to be dispensed leading to long processing times and prescriptions being away from ward for periods of time.
What they did.	■ Clinical pharmacy teams with mobile dispensing trollies introduced in May 2014.
What were the results?	■ Approximately 25% TTAs now dispensed from mobile trollies. (mainly on medical wards). ■ 25% average across all wards. Most highly performing wards are admissions and renal ward (approximately 70% are processed from these wards).

Reducing the number of medicines dispensed at discharge Royal Cornwall Hospital Trust	Sally.miles@rcht.nhs.uk
What was the challenge?	■ To reduce the number of medicines being dispensed at time of discharge.
What they did.	■ Trained pharmacy and nursing staff to ask patients during medicine reconciliation at admission whether further supply at home and documented. ■ Information used at discharge so medicines not re-dispensed if no changes where the patient has sufficient at home. ■ Obtained agreement from Kernow CCG that unchanged medicines on repeat prescription do not need to be routinely supplied.
What were the results?	■ Average number of items dispensed for patients requiring a TTO at discharge reduced by 11% between Jan and April 2016.
Other information	■ Data presented as run charts so progress could be seen over time.

Pharmacy technician releasing time for a pharmacist to prescribe Kettering General Hospital	Duane.mclean@nhs.net
What was the challenge?	■ Lengthy patient waiting time for discharge medicines on CCU with large workload for single pharmacist (prescriber unable to use prescribing qualification due to large workload).
What they did.	■ Introduced clinical pharmacy technician to lead on discharge medication preparation, patient counselling and support.
What were the results?	■ Waiting times for discharge medicines reduced from average of 2 hours and 17 minutes to 31 minutes. ■ Counselling of patients on medication increased by 80% with patient satisfaction measures increasing 3-fold ■ Non-medical prescribing activity of ward pharmacist increased by average of 79%. Contributions around re-working prescriptions fell to 24% (reflecting reduced need to re-work prescriber's errors by ward pharmacists).
Other information	■ Similar use of a pharmacist prescriber activity relieved junior doctors of 8 hours of prescribing duties per week in a 30 bedded short stay unit in the same trust.

Pharmacist transcribing of TTOs North Bristol NHS Trust	Andrew.Davies@nbt.nhs.uk
What was the challenge?	■ Failure to write TTAs in a timely way viewed as possible delay to discharge (previously only doctors wrote TTAs).
What they did.	■ One ward based pharmacist transcribed drug list element of TTAs during the week for period of two months.
What were the results?	■ 73 (45%) TTAs written by pharmacist. ■ Increased number of TTAs written in advance (pre-trial 24% written the day before compared to 39% during trial). ■ Increased percentage patient discharges before 12noon (pre-trial 11% compared to 25% during the trial).
Other information	■ Pharmacist does not need to be a prescriber therefore no implementation lag.