Developing Criteria for a Paediatric Triage Tool to aid prioritisation of patients by Clinical and Pharmaceutical Care Issues

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Background

- Triaging adult patients by pharmaceutical care issues identifies those at higher risk and in most need of care/treatment
- The nature and type of medical errors & subsequent delivery of care differs considerably in children compared with adults
- Little information available on the use of 'Triage Tools' in the paediatric or neonatal setting
- Aim - To develop a paediatric triage tool and investigate the feasibility of its implementation into routine practice using a consensus approach amongst expert paediatric and neonatal clinical pharmacists.

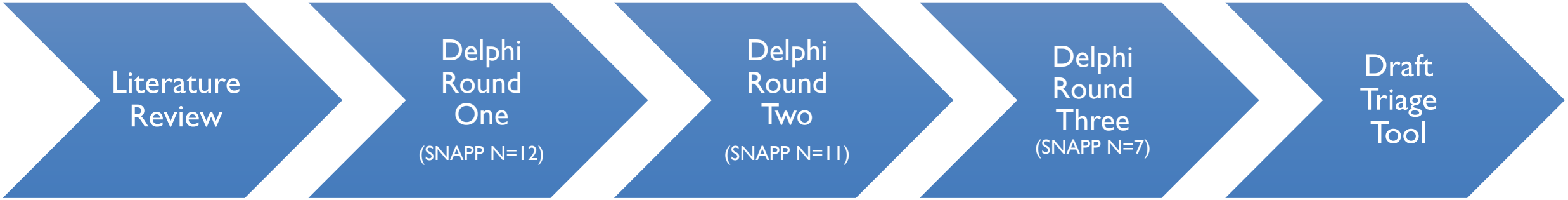
Method

- Delphi Methodology used – allows a consensus approach to be taken.
- Members of the Scottish Neonatal & Paediatric Pharmacy Group (SNAPP) invited to take part via email (N = 42)
- Statements describing scenarios to allow the prioritisation of paediatric and neonatal patients were created based upon clinical practice and the relevant literature
- Statements and scenarios formatted as a self administered questionnaires which was distributed via Qualtrics© (online survey platform)
- Five-point Likert scale response
- Comments box included for 'justification' of response

Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
1	2	3	4	5

Method (cont'd)

- Mean and mode responses calculated for each questionnaire item (statement). This identified them most popular response and the sample average.
- Content analysis was undertaken to provide a textual background to subsequent themes
- NHS Lothian Pharmacy Quality Improvement Team Approval sought



- I feel there needs to be something here – as we don't know what the 24hrs, 48 hrs actually refers to in the next slide? Or the red/amber colours?
- Would it be helpful/make sense if part of the survey was shown here ?

Results

24 hourly

- High risk medicines
- Daily aseptic need
- Unstable, chronic renal failure or acute, severe/moderate kidney injury
- Acute hepatic impairment
- Renal replacement
- ECMO or plasmapheresis
- Medicine is being withheld due to administration issues
- Prescribed continuous infusions

48 hourly

- Stable, chronic renal failure or acute, mild kidney injury
- Chronic hepatic impairment

72 hourly

- Stable patients with no acute issues

Results cont'd

?

- Patients on psychotropic medicines should be review daily
- Patient with a perceived discharge issue should be seen daily

x

- All paediatric & neonatal patients should be reviewed daily
- Stable patients can be reviewed at 14 days or re-referral
- Patients prescribed unlicensed / off-label medicine should be reviewed daily
- Patients prescribed >5 regular medicines should be review daily
- Patients receiving renal replacement should only be seen daily if they are unstable
- Patients with stable or unstable renal failure should be reviewed daily only if changes to their medication have occurred
- Patients with acute, moderate and severe kidney injury should be reviewed daily only if changes to their medication have occurred

Discussion

- Maximum of three days left between reviews – unlike adult practice where there can be to 14 days between review.
- Since multiple medicines are 'unlicensed' or 'off-label' in this patient group- it was not considered an important??? / suitable criteria
- Both medication and fluid continuous infusions require daily review
- Psychotropic medication classed as high risk due to unfamiliarity with tat type of medication
- Varying requirement for review depending on degree of renal and kidney failure regardless of what medication is prescribed
- Polypharmacy in itself does not increase the need for review

Limitations & Further Work

- 75% of pharmacists on expert panel were based in a paediatric hospital - Generalisable?
- Statements referred to both paediatric and neonatal patients
- Lacking in a statistically robust approach to 'item' validation (i.e no factor analysis performed or content/scale item analysis).
- Response rate for round three was below the generally accepted level
- Further work will include piloting the tool on a small number of paediatric and neonatal patients

Conclusion

- Participants agreed that a triage tool would be beneficial in the paediatric and neonatal setting
- The tool would allow pharmacists to focus their expertise in areas of most need to maximise pharmacist skills and increase patient safety
- 18 criteria have been agreed upon which categorise patients into one of three groups: review 24 hourly, review 48 hourly or review 72 hourly

Paediatric Clinical Pharmacy Triage Tool

Prioritisation Codes :

For use Monday to Friday 8.45am - 5pm
Phar Review Daily
Phar Review Every 2nd day (48 hourly)
Phar Review Every 3rd days (72 hourly)

Patients may fulfill criteria in more than one of the prioritisation criteria - in this situation, allocate to the highest level of code.
In the absence of specific examples relevant to each individual patient, allocate based on clinical judgement.

Phar 1 Criteria :

High risk medicine / medicine requiring TDM
e.g. SACTs, cytotoxics, phenytoin, aminophylline, vancomycin, etc.

Unstable chronic renal failure est. CrCl ≤ 15ml/min/1.73m²

Severe or moderate, acute kidney injury est. eGFR 15-59ml/min/1.73m²

Patient receiving renal replacement therapy

Acute hepatic impairment e.g. deranged liver function tests or clotting factors

Medication being withheld due to administration issues e.g. unable to swallow

Psychotropic medication for agitation and behavioural issues

Potential for significant drug interaction

Unresolved medicine issue e.g. medicine reconcilliation incomplete, supply issue

Patient with daily aseptic need e.g total parenteral nutrition, CIVAS

Patient receiving a continuous infusion N.B. includes both drug and fluid infusions

Patient receiving plasmapheresis

Perceived discharge issue Expected discharge within 24 hours e.g. counselling

Phar 2 Criteria :

Stable chronic renal failure est. eGFR ≤ 15ml/min/1.73m²

Mild, acute kidney injury est. eGFR 60 - 89ml/min/1.73m²

Chronic hepatic impairment e.g. deranged liver function tests or clotting factors

Perceived discharge issue Expected discharge within 28 hours

Phar 3 Criteria : Patient stable with no acute issues - review at 3 days or at re-referral