oncology/bone marrow transplant and haematology ward (Starlight) in 2016 showed that only 33% of fluid prescriptions for PN were written before 6pm. During 2016–2017 Starlight ward piloted a new prescribing system whereby nurses administered PN directly from the prescription used to order PN from the aseptic unit. An audit in early 2018 showed that PN was routinely set-up, checked and started by 1800hours, nurses were able to plan their time effectively and oncall doctors were only involved if patient condition warranted review. In March 2018 the pilot was replaced with similar redesigned process.

Aim To eliminate the process of prescribing volumes and flow rates for PN on fluid prescriptions. To trial a new PN prescription process on one ward, refine and improve as necessary then adopt across the whole of the hospital.

Methods On Starlight ward in March 2018 a new process for prescribing and administering PN was implemented. Nurses used the prescription for ordering PN from the aseptic unit plus the product insert to set-up, start and sign for administration. A new aseptic unit prescription was created, nursing training was provided and written guidance was issued for nurses on how to use perform set-up checks. PN prescriptions were kept on the ward. Stickers that highlighted the patient required PN were placed onto fluid prescriptions to prevent PN inadvertently not being administered.

Results All patients prescribed PN on Starlight ward received it as expected. As nurses had flexibility in PN set-up time once the product was on the ward, patient routine and preference (e.g. going out for day leave) was increasingly taken into account leading to PN often starting after 18 hours. One minor incident relating to stickers occurred which did not affect the patient. Nursing feedback was very positive. By eliminating transcribing, the process was perceived as safer. In July the trial was evaluated and one change was made to the prescription to allow clearer adjustment of PN rate/volume after the infusion began. The prescribing process was implemented on a surgical ward in August and will be rolled out across the rest of the hospital pending the outcome.

Conclusion Simplifying the prescribing process meant PN was administered at a time that suited the patient and nurse. Nurse satisfaction was improved and avoiding transcription was perceived as safer. The process will be rolled out in stages to the rest of the hospital.

P024 THE USE OF PARENTERAL NUTRITION IN PAEDIATRIC HAEMATOLOGY AND ONCOLOGY PATIENTS

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Introduction A trust wide Parenteral Nutrition (PN) guideline is available to advise the initiating, monitoring and stopping of PN.[1] Following an increase in demand on the paediatric oncology, haematology and bone marrow transplant (BMT) ward the pharmacy and dietician team decided to audit how we use PN against these guidelines.

Objectives Is PN being started and stopped appropriately according to the nutrition guidelines? Are patients being monitored on PN appropriately? Are there alternative sources of feeding that could be initiated by enteral route prior to starting PN?

Methodology The pharmacy dispensing system was used to trace which BMT, haematology or oncology patients required parenteral nutrition. A combination of the medical notes and the electronic Medway system for those patients' notes was used to collect data. Data was collected over a 12 month period from March 2017 until February 2018, a total of 29 patients were identified and audited.

Results Alternative feeding routes to PN were deemed inappropriate in all 29 patients. A full plan had only been recorded in the patient notes in just 4% (1/29) of cases. Biochemistry was routinely provided prior to initiating PN but there was a failure to monitor patients needing long term biochemistry with only 11% (1/9) of patients having long term bloods reported. Only 38% (10/26) of patients had PN discontinued when the patient reached two-thirds of their target enteral intake.

Conclusion A plan for PN is often omitted in the medical notes. There should be an expected duration, a desired outcome, IV access and a plan around what other (if any) nutrition can be given alongside. We plan to develop a PN plan proforma which can be used to stick into the notes which prompts the medical team responsible to enter this information. There is a lack of timely long term biochemistry bloods on those patients that have PN for longer than a month. This is important clinically because long term PN patients can develop deficiency in micronutrients which need replacement. We hope that educating the medical and nursing teams about this aspect of the clinical guideline will improve our practice. Lastly, the aim of PN must be to establish nutritional requirements where otherwise calorie input would not be met. Stopping early will lead to a calorie deficit and stopping too late would mean unnecessary extra clinical risk and potential inpatient stay. There were several instances where patients would have been discharged because they were otherwise clinically well but feeds were not adequate to stop PN. Other times PN is continued at 25% of requirements, where we should be stopping as soon as patients are established on 66% of oral calorie intake. This should be part of the wider team education about PN

REFERENCE

1. Phipps A. April 2016, *Total Parenteral Nutrition Guideline. Bristol Children's Hospital*.

P025 CLINICAL PEARL; TREATING INFANT BOTULISM ON A PAEDIATRIC INTENSIVE CARE UNIT (PICU)

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Problem A call was received out of hours by the specialist PICU pharmacist (SP). A five month old baby with rapidly spreading paralysis of unknown cause had been admitted to the unit. A toxin had been extracted from the stool culture and tested on mice. Within hours all mice had died, confirming a positive result for Botulism toxin. The SP was asked to obtain an urgent supply of Human Botulism Anti-Toxin however the only worldwide manufacturer/supplier, the Infant Botulism Treatment and Prevention Program (IBTPP), is based in California.[1] BabyBIG, Botulism Immune Globulin Intravenous (Human) (BIG-IV), is an orphan drug that consists of human-derived anti-botulism toxin antibodies that is approved by the U.S. Food and Drug Administration for the

treatment of infant botulism types A and B in patients <1 year old.

Pharmacist contributions Day 1: After confirmation with PHE (Public Health England) that the use of their heptavalent horse botulisum anti-toxin would be inappropriate, it was suggested that a supply should be obtained from the USA. SP phoned the IBTPP on call consultant and discussed need for an urgent supply.

Consequently SP ensured the appropriate provision and recording of required information and the seamless transition of relevant paperwork.

Day 2: SP liaised with the Clinical Director for Children's Services, the PHE consultant on call and the Trust Silver on call manager to authorise large out of hours drug expenditure. Prompt authorised signature of contract between the above parties was arranged by SP via email. SP contacted the MHRA duty officer on call to obtain an import permit authorisation letter (Notification of Intent to Import an Unlicensed Medicinal Product) to allow for this unlicensed import of a human medicinal product from outside the EEA, reaffirming this was of urgent clinical need.

Trust Chief Pharmacist was alerted to the situation by SP, and access to the to the Trust import/specials licence required by the MHRA was granted to the SP to finalise the MHRA import licence. A courier from California was organised by SP liaising with the on call IBTPP consultant, ensuring all paperwork was accurately completed. Dosing, administration and reconstitution advice was given by SP to PICU medical and nursing staff via email. SP immediately confirmed receipt via phone and provided clarification of this when required. SP remained contactable throughout the weekend to resolve any queries the staff had with regards to BabyBIG.

Day 3: The SP attempted contact with border control at Heathrow airport to ensure a timely transition through customs and liaised with the courier in the UK to ensure rapid delivery once BabyBIG had been cleared. Allowing sufficient transit time from Heathrow, the SP then called to confirm receipt of BabyBIG on PICU.

Outcome and lessons learned BabyBIG obtained and patient treated successfully, avoiding potential for serious complications and dramatically reducing PICU and overall inpatient stay. A cost analysis done by SP confirmed treatment with BabyBIG reduced overall Trust spend on this admission by half; accounting for average expected PICU stay for infant botulism cases(~6 weeks) versus this patient's stay (~1.5 weeks).

REFERENCES

1. Division of Communicable Disease Control, California Department of Public Health. Infant Botulism Treatment and Prevention Program [online] California Department of Public Health, 2010. (accessed 02 Aug 2018) Available from: http://www.infantbotulism.org/general/babybig.phpSave

P026 ONE WARD. ONE PHARMACIST. ONE BLEEP – A REVIEW OF THE WOMEN'S AND CHILDREN'S CLINICAL PHARMACY SERVICE

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Background The women's and children's pharmacy service provides morning visits to all paediatric, neonatal and gynaecology wards with a link bleep held by the band 6 pharmacist for afternoon requests. Recent feedback from band 6 rotational pharmacists that the volume of calls to their bleep after the morning ward pharmacist visits was high causing a lot of pressure and stress. With no major change in bed activity it was important to find the causes of the increased workload and solutions to any other issues to address the poor feedback.

Aim Review of the clinical link service to women's and children's services

Methods The paediatric team was briefed on the aim of the focus groups and an open and non-judgemental session was carried out to draw out the root causes and identify solutions to improve the women's and children's clinical pharmacy service. The team was divided into two groups of mixed seniority to initially discuss the problems before regrouping to theme the problems and then repeating to identify solutions to the problems.

Result Using fishbone analysis the following themes were identified to be problems: lack of continuity of specialist knowledge, women's wards, education and training, dispensary and information technology (IT). The solutions were then placed into an action priority matrix and assigned to various members of the team to carry out.

Specialist knowledge Lack of continuity of the ward pharmacist's in-depth knowledge of patients was identified as a heavy burden for junior pharmacists. They had to clinically screen new medicines or validate take home prescriptions (TTAs) of patients they didn't know including complicated cystic fibrosis, gastroenterology and oncology patients. A consensus solution was achieved by the team for ward pharmacists to be responsible for their patients throughout the day. The link pharmacist would cover for meetings and leave. New bleeps were obtained for all paediatric wards to have a dedicated bleep through the day. All wards were informed of the new system and bleep numbers. An audit is currently being carried out to determine how this affects the link bleep volumes as well as senior pharmacist time due to the extra workload and distance between the wards and the clinical office.

Women's wards Communication to the women's wards was recirculated to remind them of the link pharmacy service. A restructure of the team in October will give an additional band 6 pharmacist in place of two 0.33WTE equivalent band 7 pharmacists. This should provide wards with a pharmacist who is available after the morning visit. The link bleep will also be divided between the 2 band 6 pharmacists for women's and paediatric wards.

Education and training Senior pharmacists share their knowledge in team continuing professional development meetings but there is less one to one teaching. The junior pharmacists now receive teaching from specialist pharmacist ward visits including women's wards. Dispensary and IT: These are being reviewed by the pharmacy department.

Conclusion One week post implementation the workload to the band 6 has reduced and the impact to senior pharmacists is being reviewed.

REFERENCE

1. NHS Wales University Health Board. *Change management toolkit* 2012. Available at: www.wales.nhs.uk/bcupinnacle/opendoc/230961 Links to an external site.