

availability of shared electronic prescription data will make this type of study much more feasible in the future. The overall MPR was higher than expected, but this might be related to the role of parents, we would like to continue this work with more of our adolescent patients and those who have recently transitioned to adult services.

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03 DEVELOPING A PHARMACIST PRESCRIBING ROLE WITHIN CHILD AND ADOLESCENT MENTAL HEALTH SERVICES (CAMHS)

Claire O'Brien. *NHS Tayside*

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Aim CAMHS were unable to achieve the waiting time target for the Attention Deficit Hyperactivity Disorder (ADHD) titration clinic due to ongoing medical staff vacancies. Patients were waiting up to 7 months after diagnosis to commence medication which has a significant impact on quality of life and education.¹ The aim of this project was to utilise the skills of a pharmacist independent prescriber to initiate medication and review the response and to evaluate the impact on waiting times.

Methods Following funding approval, resource was made available to release an independent prescribing pharmacist for 1.5 days a week. Over a period of 8 weeks the following training was undertaken: shadowing clinics; reading books; national and local guidelines; accessing IT systems eg, TrakCare, EMIS, Winscribe; measuring height, weight and blood pressure; attending training sessions; appointing patients to the pharmacist led clinic from January 2018. The patient attends a baseline appointment where ADHD symptoms are assessed and medication options are discussed. The most appropriate medication is initiated at the lowest dose and is reviewed and adjusted at appointments every 2 weeks. On average it takes 4–5 appointments to complete a titration and stabilise the patient on a regular dose. Upon completion of the medication titration, a request is sent to the GP to commence repeat prescribing as per the local protocol. The patient is then appointed to the specialist nurse 3 month review clinic list.

Results Following a review and update of the ADHD titration waiting list, there were 78 patients to be initiated on medication with new patients being added each week following their end of assessment diagnosis. Over the last 6 months, the pharmacist has titrated 28 patients (36%) onto ADHD medication. 3 patients did not respond to the first line stimulant and 1 patient has not responded to the first or second line stimulant and is currently being titrated onto a non-stimulant option. All patients on the list have been appointed to a clinic run by a non-medical prescriber or a nurse with support from a medical prescriber. Moving forward, the new pathway allows newly diagnosed patients to start medication either at their diagnosis appointment or given an appointment with the pharmacist for the following week. This may result in no waiting list at all. The service has also benefitted from having a pharmacist available every week to discuss issues with clinical governance processes and high risk medication.

Conclusion The pharmacist independent prescriber played a significant role in the reduction of the waiting list for

initiation of medication to treat ADHD. Due to the number of titrations completed within the last 6 months, there is now pressure on the 3 month review waiting list. By continuing to utilise the pharmacist independent prescriber to initiate and titrate medication, this will free up specialist nurse time to focus on initial assessments and the review clinics. As a result, the clinical group are planning to provide permanent funding for this role to continue to support the new model of ADHD clinic.

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04 DETERMINING THE ACCURACY OF GP RECORDS IN PAEDIATRIC MEDICINES RECONCILIATION

^{1,2}Octavio Aragon Cuevas, ²Levi Stenson Jones. ¹*Alder Hey Children's Hospital*; ²*Liverpool John Moores University*

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Aim Medicines reconciliation (MedRec) is a process undertaken on admission to hospital to obtain an accurate list of patients' current medication.¹ National guidance for MedRec is available only in adults. Previous studies looking at accuracy of sources for MedRec in paediatrics are scarce in the United Kingdom. A few studies have shown that General Practice (GP) records do not match the patients' current medicines lists in 29–45% of patients.^{2 3} The primary aim is to determine the accuracy of GP records in paediatric Med Rec, exploring types of discrepancies and any potential relationships between discrepancy rates and polypharmacy. The secondary aim is to audit compliance with local MedRec standard operating procedures (SOPs).

Methods Prospective observational multicentre study (Site A: general district hospital; Site B: tertiary care hospital) that will take place over a 4 week period during three consecutive years. HRA approval was granted (IRAS ID 234128).

Participants received an age appropriate study information sheet and were consented to the study by pharmacy staff. Consent gave the researcher access to summary care record (SCR) and hospital records. All data was anonymised. Patients who were on no medicines at home, patients who had never been home, and those transferring from another Trust were excluded. Using the SCR, the patients' GP repeat medication list was compared to the list compiled during MedRec by hospital pharmacy staff. Statistical relationships between polypharmacy and discrepancies were explored using the contingency Fisher's Exact Test.

Results 63 patients were recruited- 27 patients (43%) on site A and 36 (57%) on site B. The study showed that the SCR did not match (medication omitted, differences in dose, frequency of formulation) the patient's actual MedRec in 54 (86%) patients. Discrepancy rates per patient were higher at site B (94%, n=34) than site A (67%, n=18). The study included 347 medicines- 95 on site A (27%) and 252 (63%) on site B. The discrepancy rate looking at the total number of medicines included in the study was 51% (n=177). Overall, the most common type of discrepancy was 'medication omitted', accounting for 114 (64%) of discrepancies. Looking at the omitted medicines, 25 (22%) were unlicensed or off-label.

Fisher's Exact Test showed an overall statistical significant relationship between polypharmacy and discrepancy rates ($p=0.05$). Only one source was used for MedRec in 32 (51%) of patients. In 2 (3%) of those patients that source were the patient's own medicines, not the parent/patient/carer.

Conclusion GP repeat lists on the SCR are not an accurate source in paediatric MedRec and should only be used to support another source. Discrepancy rates per patient were much higher compared to previous studies (86% vs 45%),²⁻³ and could have been overestimated as some GP surgeries do not add unlicensed medicines to the repeat section of the SCR. Only a small proportion of omitted medicines were unlicensed or off-label, suggesting licensing status on its own is not responsible for omissions.

A statistically significant relationship between polypharmacy and chance of discrepancy was found, but larger study numbers are needed. Local SOPs were not followed in a small number of patients (3% overall).

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05

TREATMENT OF INFANTILE BOTULISM WITH BOTULISM IMMUNE GLOBULIN (BABYBIG)

Nigel Gooding, Riaz Kayani, Lynne Whitehead. *Cambridge University Hospitals NHS Foundation Trust*

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Background A 7 month old male infant was admitted to their local hospital with poor feeding, reduced urine output, cough and respiratory distress. Worsening respiratory distress and apnoea required ventilation and transfer to a tertiary paediatric intensive care unit, with a presumed diagnosis of respiratory sepsis. Following 1 day of intensive care, intravenous sedation was discontinued with a view to extubation. After 48 hours sedation hold, the patient still had no spontaneous movements and unreactive pupils. Following further review, stool samples were sent to the Health Protection Agency (HPA) for botulism testing. Although initial tests (culture) were negative, a mouse bioassay test was subsequently reported as positive for botulism toxin. HPA and the California Public Health Department (CDPH) confirmed that treatment with botulism immune globulin (BabyBIG) was indicated. How does BabyBIG work: BabyBIG consists of human-derived anti-botulism-toxin antibodies and is approved in the U.S. for treatment of infant botulism types A and B. BabyBIG immediately neutralises circulating neurotoxin and allows motor nerve regeneration to begin. Complete recovery can take several months.¹⁻² Supply of BabyBIG: Diagnosis of botulism was made out of hours at a weekend, requiring BabyBIG to be obtained directly from CDPH. Pharmacy contacted the Medicines and Healthcare Regulatory Authority

(MHRA) on-call service to authorise UK importation of BabyBIG. Pharmacy worked closely with the clinical team and MHRA to ensure that relevant paperwork required by CDPH was completed. Cost of BabyBIG is \$43,000 USD and required the Trust Medical Director to authorise funding. CDPH authorised release of BabyBIG, which was received in the Trust 48 hours later. Administration of BabyBIG: Pharmacy prepared an IV monograph document to assist preparation and administration of BabyBIG, which is presented as 100 mg vials for reconstitution with 2 ml water for injection. BabyBIG is administered as a single dose of 50 mg/kg, infused at an initial rate of 25 mg/kg/hour for 15 minutes which, if tolerated, is increased to 50 mg/kg/hour for the remainder of the infusion. The infusion is administered via an 18 µm filter.

Patient outcome Within 24 hours of administration, there was some movement in the patient's upper limbs and some triggering of the ventilator. By day 12 post-administration pupils were more reactive and there were some antigavity movements. By Day 15 there were signs of facial movement and improved grip strength. A tracheostomy was performed to facilitate weaning from the ventilator. By Day 67 the infant was off the ventilator and on Day 93 was discharged to their local hospital.

Summary Pharmacy played a significant role, ensuring correct processes were followed for BabyBIG to be ordered out of hours, liaising with international partners, organising international transit, ensuring import documentation was available, providing important drug information to ensure the drug was prescribed and administered correctly, and answering parent's questions about the medication. In this case, BabyBIG provided a highly effective treatment for infant botulism.

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06

BRIDGING AN INFORMATION GAP: DEVELOPMENT OF DRUG SPECIFIC FACTSHEETS FOR CHILDREN AND YOUNG PEOPLE WITH CANCER

¹Anna Kinsella, ²J Delaney, Publications Committee, Paediatric Oncology Pharmacists Group, UK. ¹Leeds Teaching Hospitals Trust; ²Great Ormond Street Hospital; ³Children's Cancer and Leukaemia Group (CCLG)

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Aim Patient information leaflets (PILs) have been a legal requirement in the UK for all medicines for almost 20 years. However, as many of the drugs used in children with cancer are unlicensed or used outside the terms of their licence 'off-label', information provided by the manufacturer does not always tell parents/patients everything they need to know about the use of the medicine in children and young people. In 2014, a survey conducted by the Children's Cancer and Leukaemia Group (CCLG) revealed 92% of parents wanted more drug specific information. The aim of this piece of work was to address these information needs through the development of standardised drug specific factsheets for children and young people with cancer.

Methods Information was collated on the availability of paediatric drug specific PILs at primary treatment centres (PTC's)