well as clear lines of communication between healthcare sectors. The specific knowledge and skills of specialist paediatric pharmacists are highly valuable in driving special medicines rationalisation for children in the community.

REFERENCE

DEVELOPMENT OF A HYDROXYCARBAMIDE TELEPHONE CLINIC FOR CHILDREN WITH SICKLE CELL DISEASE

Alexandra Hollway*. Leeds Teaching Hospital NHS Trust 10.1136/archdischild-2022-NPPG.15

Aim Develop the hydroxy carbamide prescribing process for sickle cell disease to improve outcomes and patient experience through: implementing electronic prescribing; identifying and addressing non-adherence; optimising doses; improving accessibility of medication and developing a hydroxy carbamide telephone clinic.

Method The clinic was planned to be piloted mid-2020 however due to the COVID pandemic requiring more services to be delivered remotely the timeline was accelerated and all patients switched to telephone reviews in March 2020.

New patients are commenced on hydroxy carbamide at a face-to-face outpatient appointment which includes counselling and consent, review of baseline bloods, introduction to the telephone clinic and medication counselling.

Patients are then eligible for the hydroxy carbamide telephone clinic. Patients attend outpatient phlebotomy for the necessary monitoring blood tests prior to their telephone appointment. At the telephone appointment a virtual review takes place including a review of symptoms, blood results, medication adherence and adverse effects. An 8-12 week supply of hydroxy carbamide is prescribed by a nurse or pharmacist prescriber and sent to the patient’s local pharmacy or home address by the hospital outsourced pharmacy. Follow up appointments are made every 8-12 weeks.

Patients continue to have face to face medical appointments; the interval is determined by individual patient factors but a minimum of annually.

Results In September 2019 (prior to electronic prescribing) an audit of patients who had been on hydroxy carbamide for 9 months or more (n=26) had a mean dose of 21.7 mg/kg. A repeat audit in July 2021 showed a mean dose of 26.9 mg/kg (n=36).

Electronic prescribing has facilitated more accurate prescription records and structured dose escalation. It also supports better monitoring of adherence since it is clear during a review when the next supply should be required. This along with questioning what medication supply patients have at home allows adherence issues to be identified and discussed with patients/carers.

An audit of haematology outpatient clinic waiting times prior to implementation showed an average wait time of 82 minutes; one of the recommendations was to implement this telephone clinic. In a patient/carer survey on care during the pandemic, 88% of respondents were happy with the telephone reviews they had received and 82% wished to continue with telephone clinics.

Conclusion The results show an escalation in hydroxy carbamide dose which correlates with a higher fetal haemoglobin, this in turn is associated with increased survival.1 This has been facilitated by the increased opportunity to focus on prescribing and medication review. From March 2020 to May 2021, due to the pandemic, dose escalation only took place if patients were admitted with crisis so further improvement may be seen in the future.

Full patient/carer involvement wasn’t possible in the initial set up of this new service due to pandemic limitations and the rapid implementation this necessitated. This may have contributed towards challenges with attendance for blood tests. Although the results show positive attitudes towards the clinic, re-audit of outpatient waiting times and patient/carer satisfaction is planned as the service is developed further.

REFERENCE

HORMONAL CONTRACEPTIVES: SAFE FOR USE IN ADOLESCENT GIRLS?

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Aim There is an increased use of Hormonal Contraceptives (HCs) in female adolescents, during a period of growth, development and hormonal changes.1 2 Due to the limited long term safety data available for adolescents, most of the guidelines that inform clinical practice for the use of HCs are extrapolated from adult safety data.3 This study aimed to provide a comprehensive review of the existing evidence on the safety profile of HCs use in adolescent girls under the age of 19 years.

Method A systematic review was carried out by searching through Medline, EMBASE, CINAHL, BNI and Cochrane Central Register of Controlled Trials for articles published between 2000-2019. All studies reporting side effects of HCs in young females, 19 years of age or under were included. The studies were not limited to those only using hormonal contraceptives for contraception purposes. In the main analysis we evaluated the association between the different hormonal contraceptives and the type of side effects. Two reviewers checked the quality of the studies and independently extracted data. Meta-analyses were performed, where possible, using random-effects model.

Results Fifty-two studies were included in the review, with an overall good quality picture. Of these, 28.8% (15/52) of them were included in the meta-analyses with a total of 6453 participants. The most reported side effect was changes in bone mineral density (BMD) (38%, 20/52), followed by changes in bleeding patterns (33%, 17/52) and weight gain (15%, 8/52). There was a significant association between the use of HCs and reduced bone development [spinal BMD mean difference -0.39, 95% CI -0.58 to -0.20, P<0.0001; femoral neck BMD mean difference -0.25, 95% CI -0.41 to -0.09, P=0.002; hip BMD mean difference -0.34, 95% CI -0.67 to 0.00, P=0.05] and altered bleeding patterns (OR

References:

Method:
The clinic was planned to be piloted mid-2020 however due to the COVID pandemic requiring more services to be delivered remotely the timeline was accelerated and all patients switched to telephone reviews in March 2020.

New patients are commenced on hydroxy carbamide at a face-to-face outpatient appointment which includes counselling and consent, review of baseline bloods, introduction to the telephone clinic and medication counselling.

Patients are then eligible for the hydroxy carbamide telephone clinic. Patients attend outpatient phlebotomy for the necessary monitoring blood tests prior to their telephone appointment. At the telephone appointment a virtual review takes place including a review of symptoms, blood results, medication adherence and adverse effects. An 8-12 week supply of hydroxy carbamide is prescribed by a nurse or pharmacist prescriber and sent to the patient’s local pharmacy or home address by the hospital outsourced pharmacy. Follow up appointments are made every 8-12 weeks.

Patients continue to have face to face medical appointments; the interval is determined by individual patient factors but a minimum of annually.

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In September 2019 (prior to electronic prescribing) an audit of patients who had been on hydroxy carbamide for 9 months or more (n=26) had a mean dose of 21.7 mg/kg. A repeat audit in July 2021 showed a mean dose of 26.9 mg/kg (n=36).

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Conclusion:
The results show an escalation in hydroxy carbamide dose which correlates with a higher fetal haemoglobin, this in turn is associated with increased survival.1 This has been facilitated by the increased opportunity to focus on prescribing and medication review. From March 2020 to May 2021, due to the pandemic, dose escalation only took place if patients were admitted with crisis so further improvement may be seen in the future.

Full patient/carer involvement wasn’t possible in the initial set up of this new service due to pandemic limitations and the rapid implementation this necessitated. This may have contributed towards challenges with attendance for blood tests. Although the results show positive attitudes towards the clinic, re-audit of outpatient waiting times and patient/carer satisfaction is planned as the service is developed further.

References:
Factors influencing the implementation of clinical pharmacy services for hospitalized patients: a mixed-methods systematic review.

Abstract

3.17; 95% CI 1.31 to 7.64; P=0.01) in female adolescents taking HCs.

Four studies (7.7%, 4/52) reported the association of using HCs with depression, mood changes and the initiation of the first use of antidepressant in young adolescents, with the highest odd ratio reported in teens aged 12–14 years (OR 3.46, 95%CI 3.04-3.94). Qualitative analysis further demonstrated the association of HCs use with the increased risk for early onset breast cancer in young females.

Conclusion This is the first comprehensive systematic and meta-analysis review demonstrating the association of HCs use with significant adverse effects in adolescent girls. With the increasing adolescent exposure to HCs, further robust studies are warranted to determine the long-term safety profile specific to this population and inform current practice guidelines, especially with the rise in mental health illnesses in adolescents.4

REFERENCE


P08 FACTORS INFLUENCING THE IMPLEMENTATION OF CLINICAL PHARMACY SERVICES ON PAEDIATRIC PATIENT CARE IN HOSPITAL SETTINGS

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Aim This systematic review (SR) was undertaken to identify and summarise any factors which influence the implementation of paediatric clinical pharmacy service (CPS) from service users’ perspectives in hospital settings.

Method Literature search from EMBASE, MEDLINE, Web of Science (Core Collection), Cochrane Library, Scopus and CINAHL databases were performed in order to identify any relevant peer-reviewed quantitative and qualitative studies from inception until October 2019 by following the inclusion criteria. Boolean search operators were used which consisted of service, patient subgroup and attribute domains. Studies were screened independently and included studies were quality assessed using Mixed Methods Appraisal Tool (MMAT). The study was reported against the ‘Enhancing transparency in reporting the synthesis of qualitative research’ (ENTREQ) statement.

Results 4199 citations were screened by title and abstract and 6 of 32 full publications screened were included. There were 2 studies that were graded as ‘high’ in quality, with 4 graded as ‘moderate’. The analysis has led to the identification of 7 factors categorised in 5 pre-determined over-arching themes. These were: other healthcare professionals’ attitudes and acceptance; availability of clinical pharmacist on ward or outpatient settings; utilising drug-related knowledge to perform clinical activities; resources for service provision and coverage; involvement in a multidisciplinary team; training in the highly specialised areas; and development of communication skills.

Conclusion Evidence for paediatric CPS was sparse in comparison to a similar SR conducted in the adult population. An extensive knowledge gap within this area of practice has therefore been identified. Nevertheless, majority of the factors identified were viewed as facilitators which enabled a successful implementation of CPS in paediatrics. Further research is needed to identify more factors and exploration of these would be necessary to provide a strong foundation for strategic planning for paediatric CPS implementation and development.

REFERENCE


P09 MANAGEMENT OF AGGRESSIVE SYSTEMIC MASTOCYTOSIS IN A 4KG INFANT

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10.1136/archdischild-2022-NPPG.18

Background Aggressive systemic mastocytosis is a very rare life-threatening diagnosis whereby mast cells accumulate in internal tissues and organs. There are limited case reports of this condition, particularly in children, and is associated with poor prognosis.

Situation We present a case report of a child who was diagnosed as a neonate with cutaneous mastocytosis and subsequently developed massive hepatosplenomegaly, cytopenia and failure to thrive. Genetic testing was carried out, confirming somatic changes in the KIT proto-oncogene receptor tyrosine kinase, which controls important cellular processes. Her twin was unaffected. Treatment goal was to reduce disease burden and if clinically fit enough, to proceed with allogenic stem cell transplantation.

Contribution of the Pharmacy Team This case presented numerous pharmaceutical challenges. Drug reactions can be severe and life-threatening resulting in anaphylaxis. Therefore, management of paediatric systemic mastocytosis includes strict avoidance of triggers of histamine; including: drugs, infection, allergens and physical stimuli. The pharmacy team advised on the most appropriate analgesia, infection prophylaxis, anti-mediator therapy and mast-cell targeted treatment options.

First line therapy for adult patients with this condition is midostaurin. This is formulated as a 25mg capsule, which is the only licensed preparation. Due to the rarity of this condition in paediatrics, only case reports were available. Suggested initial dosing of 30mg/m² twice daily would provide a dose of 7.8mg twice daily in a 4kg infant. The manufacturer was contacted to request supply of an alternative formulation if available on a compassionate access basis to meet the clinical need.