

in Hong Kong's public hospitals from clinical pharmacists' perspective.

**Methods** A qualitative study based on semi-structured interviews (SSIs) of clinical pharmacists who practiced in paediatrics in four public hospitals situated in east and central Kowloon of Hong Kong. The questions in the interview schedules were based on previously determined themes identified in paediatric CPSs and were developed through consultations with all researchers.<sup>1 2 4</sup> Pilot testing was performed with three study participants to confirm the coverage and relevance. Participants were given the choice to select either telephone or video conferencing for their SSIs. The interviews were conducted by the principal investigator (PI) in spoken Cantonese. The transcripts were translated into English by the PI, and a sample of the translated transcripts was subsequently checked by the research team for accuracy and to minimise transcriptional error. The transcripts were entered in QSR NVivo v.12 to support data analysis. Two researchers were responsible for the coding process. The resulting topics were organised by thematic analysis. Consensus was reached amongst the researchers for the identification of themes that emerged during the interviews. The Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines were used.<sup>3</sup> Ethical approval for this study was obtained from the research ethics committees of the relevant institutions.

**Results** Of the 32 clinical pharmacists from across the study sites, 12 were interviewed by telephone that allowed for theoretical data saturation to be reached. Five barriers and three facilitators were identified as main themes. The barriers that were identified which hindered service implementation include the service penetration into the healthcare system, practice environment constraints, lack of affirmation from the administrative stakeholders, governance of the profession, and partnership with universities. The facilitators that were identified which enabled service implementation include other healthcare professionals' trust and confidence in the service, the support from the pharmacy management team, and clinical pharmacists' self-efficacy.

**Conclusion** The clinical pharmacists interviewed in this study reported that the successful implementation of paediatric CPS in public hospitals in Hong Kong is an area of continued development with several key barriers. The major implementation barriers identified include the availability and coverage of clinical pharmacists for service provision. Nevertheless, clinical pharmacists and healthcare professionals were found to have not only positive attitudes towards CPS but also support from clinical and pharmacy management teams. An enhanced internal and external governance infrastructure within the pharmacy profession would allow for the standardisation of practice and training, which would ultimately help drive the implementation of CPS forward as a whole.

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## TREATING CHILDREN WITH HCV CLOSE TO HOME THROUGH A VIRTUAL NATIONAL MULTIDISCIPLINARY NETWORK

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**Aim** Hepatitis C Virus (HCV) infection is a major global health problem. Direct Acting Anti-viral therapy (DAA) has cure rates of 99% in adults and adolescents.<sup>1</sup> DAAs were licensed for children 3 – 12 years during the recent coronavirus pandemic. In order to ensure equitable access and a safe, effective and convenient supply of these medications during lockdown, we established a virtual national treatment pathway for children with HCV in England and evaluated its feasibility, efficacy and treatment outcomes.

**Method** A paediatric Multidisciplinary Team Operational Delivery Network (pMDT ODN), supported by NHS England (NHSE), was established with relevant paediatric specialists, including pharmacists, to provide a single point of contact for referrals and information. Referral, treatment protocols and family friendly patient information were developed for all HCV therapy. On referral the pMDT ODN discussed and agreed the most appropriate DAA therapy based on clinical presentation and patient preferences, including ability to swallow tablets. Treatment was then prescribed and supplied in association with the local paediatrician and pharmacist, without the need for families to travel to national centres. All children were eligible for NHS funded therapy, each referring centre was approved by the pMDT ODN, prior to approval to dispense medication and funds were reclaimed via Blueteq authorisation. Demographic, clinical and social data was collected, and treatment outcomes were recorded. Feedback on feasibility and satisfaction on the pathway and supply of medication was sought from referrers.

**Results** 34 children were referred during the first six months; median (range) age 10 (3.9 – 14.5) years; 15M; 19F: Majority of referrals are HCV genotype type 1 (n=17) and 2 (n=12). DAA treatments prescribed: Sofosbuvir/Ledipasvir (n=21); Sofosbuvir/Velpatisvir (n=11) Glecaprevir/Pibrentasvir (n=2).

27/34 confirmed as able to swallow tablets; 3/7 have received training and are now able to successfully swallow tablets; 4/7 are awaiting release of granules. All children who have completed treatment to date (11/27) have cleared virus at the end of treatment. Once the network was established, referrers found the virtual process easy to access. They valued being able to discuss their patients with the MDT providing a single point of contact with national specialists to discuss therapy. Specialist pharmacists within the pMDT were able to provide pharmaceutical information and support local Trusts to ensure safe, timely and funded supply of medication to children. There were three reported dispensing errors, where adult strength tablets were dispensed in error locally, however no doses were taken as parents noticed the error prior to giving a dose. A delay in availability of the granule or pellet formulations due to manufacturing delays during COVID, has meant a delay in referring and treating those children unable to swallow tablets.

**Conclusion** Pharmacists were a valuable resource within the National HCV Paediatric MDT Operational Delivery Network.

They contributed expert knowledge on formulations and doses, supporting delivery of high-quality treatment and equity of access for children and young people with HCV in England. Education and awareness of new Paediatric formulations for local Pharmacy teams may prevent future dispensing errors.

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#### EVALUATING THE NOVEL ROLE OF THE PAEDIATRIC ENDOCRINE PHARMACIST

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**Context, Situation or Problem** The UK clinical standards for paediatric endocrinology stipulate that a designated pharmacist should be a member of the multidisciplinary team at a lead specialist centre.<sup>1</sup> However, the paediatric endocrine pharmacist role remains underutilised and ill-defined nationally. The aim of this quality improvement project was to develop the specialist clinical pharmacist role within a large tertiary paediatric endocrine department, and to evaluate and assess the contribution of the pharmacist to patient care. The project was undertaken from July 2021 to May 2022 and focussed on two newly defined pharmacist-led roles: 1) review and prescribing for day case paediatric patients receiving zoledronate infusions for bone fragility, and 2) steroid medication review clinics for children with adrenal insufficiency. Day case duties were previously undertaken by the specialist registrar, whereas the outpatient duties comprised the development of a new clinical service. The number and type of prescribing interventions were documented. A validated 10-item experience of service questionnaire (ESQ) was offered to patients and parents at the end of appointments to measure their satisfaction of care.<sup>2</sup> The questionnaire outcomes were converted to a standard numerical score and presented as percentage points. During the review period, the pharmacist led on 36 day cases for zoledronate infusions and 60 outpatient clinic appointments for hydrocortisone medication review. For the day case cohort, the pharmacist made changes to the patient's usual calcium formulation in 12 cases (33%), identified the need for vitamin D supplementation or treatment dose for 7 cases (19%), and prescribed off-guideline calcium dosing for 3 cases (8%). For the outpatient cohort, the pharmacist made 44 prescribing decisions. These were classified as changes to hydrocortisone stress doses or emergency injection doses (n=6, 10%), or issuing a prescription via outpatient pharmacy or GP (n=38, 63%). Of the prescriptions issued, the most common interventions involved a change in the oral hydrocortisone formulation (n=11, 18%) or prescribing hydrocortisone sodium phosphate ampoules when it was not being offered by the GP (n=11, 18%). Ten patients/parents in the day case cohort and 20 in the outpatient cohort completed the survey, with the average score of satisfaction of care being 99.7% and 99.6%, respectively.

**Conclusion** The project demonstrates the positive impact of the clinical pharmacist as part of the evolving specialist practitioner role, encompassing consultation skills and clinical decision-making within the day-case ward and outpatient clinic

settings. The above duties relieved registrar time and offered new clinics to further support local and regional paediatric patients. Furthermore, the outcomes revealed a significant need for dedicated review of drug formulations for these patient groups. Expected benefits of formulation reviews include improvement in children's adherence and independence with taking their medicines.<sup>3</sup> The high score obtained by ESQ highlights the quality of pharmacist-led consultations in both the day case and outpatient settings. Together, these outcomes show a promising new model for the clinical paediatric endocrine pharmacist and prompt the need for further developing such specialist roles within the multidisciplinary team.

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#### DISCHARGE MEDICINE SUPPLY – WOULD A DIFFERENT APPROACH POSITIVELY IMPACT PATIENT FLOW?

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**Aims** In March 2020, prior to the first national lockdown, as part of escalation planning for the COVID pandemic, clinical areas within the Children's Unit in our District General Hospital were repurposed. This was to increase the number of single rooms to meet stringent social distancing and isolation standards. As a result of this, the overall bed capacity within the unit was reduced. A UK government publication at the time concluded that children who had so far been infected with the SARs-CoV2 virus had mild, or no symptoms and were far less likely than adults to need medical intervention. However, at this very early stage, it acknowledged that there was a lack of good quality data.<sup>1</sup> There was concern within the service that admissions for any indication would need to be accommodated in fewer beds, and in order to maximise patient flow, options to reduce length of stay were examined. One of the pinch points in the patient journey was identified as the waiting time for discharge medication supply via the hospital pharmacy, as there was no paediatric discharge lounge, and the pharmacy team were asked to look at alternative, ward-based medication supply options.

**Method** Several options were identified and implemented. Changes to the local Code of Practice were effected to allow-

- Selected labelled discharge (TTO) packs for commonly used inhalers, antibiotics and analgesics to be dispensed at ward level against an Immediate Discharge Letter (IDL) 24 hours a day (previously only an out of hours option)
- Hospital HBP forms to be used far more widely for supply, via a community pharmacy

In addition, a small selection of Patient Group Directives (PGDs) which had previously been successfully trialled in the children's department was expanded to include indications for other commonly used drugs. These were used alongside the nurse-led discharge pathway if medical staff were not immediately available to write a discharge prescription. In order to