experience of feedback and attitudes towards structured, personalised prescribing feedback. Participants were also able to express their interest in participating in a feedback session.

A selection of prescribers who had chosen to participate were then monitored and contacted to arrange a feedback session. This comprised of a short interview style session based on Pendleton’s rules for feedback in which pictures of their prescriptions were appraised and a structured feedback form completed by the pharmacist was reviewed. The feedback form was split into sections covering legibility, accuracy and completeness, with each section having a non-numerical scoring system, together with practical examples and suggestions for improvement.

After the feedback session, prescribers were asked to complete a feedback response form which allowed them to express how useful they found the feedback, whether they felt it would change their practice and to give comments.

Results The initial questionnaire was completed by a wide variety of prescribers including different grades of doctor and advanced neonatal nurse practitioners (ANNPs) with a range of 0–15 years of neonatal prescribing experience. 45% of respondents had never received personalised prescribing feedback, and 90% of respondents said they would welcome it. Comments included a desire for positive feedback as well as suggestions for how to improve. Feedback sessions are still ongoing, and initial results of the post-feedback questionnaire are positive – mean score of 4.3/5 for usefulness of feedback to practice. Comments include ‘This has been the single most useful feedback for my prescribing practice to date’ – ST3 Doctor.

Conclusion Providing personalised feedback to prescribers is welcomed and should be explored more widely. Initial results show that prescribers find personalised feedback useful and they can use it as a basis for reflecting on prescribing practice.

REFERENCES

SP7 SWITCHING TO CLONIDINE TRANSDERMAL PATCHES IN FOUR PAEDIATRIC CASES: STRATEGIES BENEFITS AND CHALLENGES
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Background Clonidine is an alpha-2 agonist acting in the central nervous system (CNS) and licensed for use in all grades of hypertension, prophylactic management of migraine or recurrent vascular headache and management of vasomotor conditions. In paediatrics, clonidine has been used for a variety of indications which include use as pre-medication, as analgesia adjuvant, for sedation in paediatric intensive care units (PICU), treatment of spasticity and dystonias, prevention of emergency agitation and in hypertension. Oral clonidine has a short half-life of 12 to 16 hours and is associated with peaks and troughs in drug concentration resulting in 2 to 8 hourly dosing intervals. Long-term intravenous clonidine is not viable for a variety of reasons which includes intravenous (IV) access, infection risks and complex ongoing management. Clonidine transdermal patches, approved for use in 1984, provide approximately constant therapeutic drug level for 7 days and may represent a viable option for paediatric patients on long-term clonidine.

Aim To describe the strategies adopted in converting four paediatric patients to clonidine transdermal patches from either enteral or parenteral clonidine; the benefits and challenges of the conversion.

Method The intrinsic characteristics of clonidine transdermal patches and the therapeutic/clinical goal for each patient informed the switch strategy. Evaluation of the effect of switch was done at least three months after switch through consented open interviews with stakeholders, and evaluation of clinical symptoms.

Results The switch strategy to clonidine patch is complex and different for each patient. The factors to consider include: (i) clinical/therapeutic goal for the patient; (ii) the characteristics of the patch (iii) patient’s characteristics – weight and surface area; (iv) detailed counselling of patients and carers; (v) individualised prescription; (vi) ongoing review of supply and patch effectiveness. All patients were switched to patches and achieved approximately equivalent clinical effects, although one child required further dose adjustment. One parent considered the switch to patches to be very good:

‘We struggled...we employed the services of night carers four times a week...and we were too exhausted. (The change) has a massive impact on everyone’s quality of life...it has been brilliant’.

Another parent observed that the application of patches was not difficult and that the change has been good:

‘The nurse gives me the patch, I label them and make three lines on the child’s skin and rotate the patch, so there is always a space spare for 2 weeks before re-applying there again. It is not difficult’.

In a clinic letter for another child who was switched to patches, the clinician noted:

‘Since he changed to the patches there was no change in his dystonia (and) he has tolerated well. According to mother the main trigger for his dystonic episodes is heat’.

One of the nurses looking after another child considered the switch overall to be poor to fair:

‘(Using patches) is good in general as they (children) are not attached to pump and easy to move them around...(however) for him (this child), he was too sweaty and patch will fall off...his skin is really dry/red around the cover patches. It would be better if you didn’t have as many as nine patches to apply. It is difficult to wash him with so many patches. He responded better with IV clonidine but we were able to get him off infusion to patches. Education on what to do when it (the patch) falls off will be really useful’.

Conclusion The use of clonidine transdermal patches is a viable option for children needing long-term clonidine. This option has the potential to offer significant cost saving to the National Health Service (NHS) and improved quality of life of children and their carers; especially in those cared for at home. The strategy for conversion is complex and requires taking a number of factors into account. Switch to transdermal patches will not be suitable for all patients and criteria for selecting suitable patients and a generalised framework for switching are yet to be fully described.
Aim To evaluate the feasibility of a study investigating the mouth-feel of different sized 3D printed placebo solid dosage forms (SDFs) in children and young people (CYP) aged 4–12 years.

Method All participants in the CAT 3D Study had previously participated in the Creating Acceptable Tablets (CAT) Study, a feasibility study which assessed the swallowability and acceptability of different sized placebo tablets, and therefore only attempted to swallow one 3D printed tablet. If the participant had successfully swallowed all three tablet sizes in the CAT Study (6 mm, 8 mm, 10 mm) they were then randomised to receive any of the 3D printed tablets – 6 mm, 8 mm or 10 mm diameter. If a participant had not successfully swallowed all tablet sizes, they were allocated a 3D printed tablet of equal size to the largest tablet they had successfully swallowed in the CAT Study. Following informed consent, participants were shown a short video demonstrating how to swallow a non-swallowed tablet. The participants assessed the swallowability of different sized placebo tablets, and therefore only attempted to swallow one 3D printed tablet. If the participant had successfully swallowed all three tablet sizes in the CAT Study (6 mm, 8 mm, 10 mm) they were then randomised to receive any of the 3D printed tablets – 6 mm, 8 mm or 10 mm diameter. If a participant had not successfully swallowed all tablet sizes, they were allocated a 3D printed tablet of equal size to the largest tablet they had successfully swallowed in the CAT Study. Following informed consent, participants were shown a short video demonstrating how to swallow a non-swallowed tablet. The participants assessed the swallowability, acceptability, mouthfeel and taste of the sample using a 5-point hedonic facial scale on a participant questionnaire. Faces 1–3 on the hedonic scale were deemed acceptable to the participant. The participants were also asked if the 3D printed tablet was a medicine, would they be willing to take it every day. In addition, they were asked which tablet felt better in the mouth as a comparison of mouthfeel between the GMP manufactured coated tablets (CAT study tablets) and the 3D printed tablets.

Results A total of 30 participants were recruited to the CAT 3D Study, 87% of whom successfully swallowed the 3D printed tablet that they attempted to take. Attributes of the 3D printed tablets were scored as acceptable by the following percentage of participants – swallowability (80%), mouthfeel/texture (87%), volume (80%), acceptability (83%) and taste (93%). 77% of children advised they would be happy to take the tablet every day if it were a medicine. Participants were also asked which tablets felt better in the mouth – the CAT tablets or the 3D printed CAT 3D tablets, and the most popular response was that both felt ok (43%).

Conclusions The data from this study shows that 3D printed SDFs may be a suitable dosage form for children aged 4–12 years. The results from this feasibility study will be used to inform a larger, definitive study looking at the mouthfeel of 3D printed tablets in children.

References

Background There are large groups of children where families have problems obtaining ongoing supplies of their children’s medicines in primary care due to them being high risk and complex, unlicensed, off label or expensive. The KidzMed project was established ‘For all children to get the right medicine at the right dose at the right time with the right monitoring with minimum fuss wherever they live.’

Tablets are safer, more convenient and cheaper than liquid medications. Children often remain on liquid due to habit, reluctance and parental and staff not knowing how to convert. The idea of converting came from initial HIV medications which were only available in tablets; children as young as 3 years could be taught.2 3

Aim Quality improvement project to teach children and young people (CYP) on long term medication how to take tablet medication in an out-patient setting.

Method Working with families and our teams we created an interactive training package with video (http://northernpaediatrics.com/kidzmed/) and comic poster. We ran interactive hour-long training sessions for staff. Using positive reinforcement and play, the trainer sat facing the learner with sweets or dummy filled capsules of increasing sizes, from size 3 (15 mm) to size 00 (23 mm).

Over the next 12 weeks in one team we embedded a process for children ≥5 years attending complex renal clinics to be converted from liquid to tablet medication unless contraindicated (e.g. swallowing or cognitive impairment).

Outcome measures included successful conversion rate, patient and staff feedback and cost savings.

We overcame practical barriers by placing easily accessible ‘switching kits’ in clinic filled with the necessary dummy pills, awards and certificates. To increase confidence, we created a sealed dosette box with common medications so children could see the size of tablets they needed to swallow. Working with the clinical team we standardised processes (e.g. how to round doses, pre-screening clinic lists and creating prompts).

Results Over three months, 90 CYP were seen in 13 multi-disciplinary renal clinics, 25 were suitable for conversion to tablet medication. 21 CYP (median age 8.4 years range 5.1 to 15.5) were successfully converted (only one patient required

References
