preparation process was completed and a mini isolator was re-
commissioned for this purpose following appropriate testing
by Quality Control. The Department of Pharmacology at
Newcastle University were contacted to establish if therapeutic
drug level analysis might be possible. Local approval for pazo-
panib use was obtained from the Drug and Therapeutic
Group and an IFR was submitted to NHS England.

Challenges It was challenging to establish a dose regimen since
the recommended paediatric dose from Phase I studies of
pazopanib were dependent on the formulation used.1 4 Phar-
macokinetic sampling was not possible as no assay had been
developed in the UK. The lack of availability of any commer-
cial or compassionate use liquid preparation meant that the
only way of giving the drug to this child was to prepare an
extemporaneous preparation, despite paucity of evidence to
support the stability of the preparation. Fundraising was not
approved by NHS England; local funding was agreed.

Outcome and Discussion The child commenced treatment with
the suspension in October 2018, administered via the gastro-
stomy tube. By July 2019 the patient had completed 10 cycles
of therapy. Treatment was well tolerated. Minor side effects
included abdominal and leg pain, vomiting, and a change in
hair colour. The patient has had a good clinical response and
a recent scan has shown substantial improvements in morphi-
ological appearance and size of the tumour.

These results indicate that a locally prepared extemporane-
ous oral chemotherapy suspension can be successfully used to
deliver treatment for a rare type of children’s cancer. Phar-
macy colleagues across the department collaborated to
facilitate this novel treatment option.

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SP5 TENFOLD MEDICATION ERRORS IN CHILDREN – WELSH PEDIATRIC SURVEILLANCE UNIT STUDY 2017-9

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Aims To establish the incidence and characteristics of tenfold
or greater and a tenth or less medication errors in children
<16 years in Wales to help inform patient safety on a popula-
tion level.

Method Population-based incidence study in Wales, UK, from
June 2017 - May 2019 (24 months). Cases were reported
from paediatricians and hospital pharmacists using the monthly
Welsh Paediatric Surveillance Unit (WPSU).

Results 46 confirmed incidents in 44 children from 63 notifi-
cations were identified. Cases came from 8 hospitals in Wales
with 29 (63%) from the sole tertiary hospital. Median age
was 1.7 (range 1 week to 15) years and weight 10 kg (0.6
to 59).

39 (85%) were overdosing (up to 1000x fold error) and
7 underdosing. 40 different medications were involved, 16
(37%) intravenous. Of 29 cases involving enteral medication,
26 (90%) were liquid formulations. Three cases were dis-
charge medication prescribed or dispensed incorrectly and
administered at home. Stage of errors were primarily in pre-
scribing 37 (80%), administration 7 (16%) and dispensing 2
(4%).

18 (42%) cases reached the patient, 10 from prescribing.
Seven cases were spotted after multiple doses were given. Six
errors resulted in harm, three which required intensive care
treatment. No deaths or permanent disabilities were reported.
Half (23/46) of all errors reported and two-thirds (12/18) of
cases that reached the child occurred in <10 kg children.

Several human factor themes were identified: Prescribing
confusion between gram milligram and microgram (none
reached patient, n=7), confusing between mg and mg/kg (n=6
including 3 underdosing errors), leading zero errors (e.g. 0.1
vs 0.001 mg, n=6) and prescribing reconciliation errors where
admitting doctor attempted to prescribe chronic medication in
mg by reversing calculating liquid dosage expressed in mL
(n=4).

During this study period 164,000 hospital admissions
occurred in children <16 years in Wales. Our data estimates a
tenfold error incidence of 1:3600 paediatric admissions, with
drug reaching the child in 1:9000 admissions.

Conclusion In this unique first ever population surveillance
study, tenfold errors in children occurred at every stage of
medication process and in the full range of care settings.
Errors found were very different from those obtained from
tertiary hospital single centre study and UK National Report-
ing and Learning System (NRLS). Strategies for error reduc-
tion will be more productive if designed across a whole
national healthcare system.

SP6 BUILDING ON THE DRUGGLE: PERSONALISED FEEDBACK TO IMPROVE AND MAINTAIN GOOD PRESCRIBING PRACTICE

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Background Inspired by work from a number of other centres,1 2
a weekly ‘Druggle’ was set up on our 28 cot terti-
ary, level 3 neonatal intensive care unit in June 2018. The
Druggle is a short pharmacist-led briefing in the clinical area
involving doctors and nurses, focussing on prescribing and
administration issues and errors. Over the first year a concur-
rent zero tolerance audit shows an improvement in prescribing
practice, with an increased number of charts with zero errors
(63% in June 2018, 95% in June 2019). Despite the improve-
ments in prescribing practice, average attendance at the Drug-
 gle has fallen from 17 people per week to 7 over the year. It
was decided to consider personalised feedback on prescribing
as a potential new mechanism to improve and maintain pre-
scribing standards.

Aim To investigate if structured, personalised feedback to pre-
scribers on a neonatal unit could be an innovative way of
improving prescribing standards and patient safety. The project
was set up to gain an insight into prescribers attitudes towards
prescribing feedback and to see what impact that feedback
might have on their attitudes after it had been carried out.

Method All prescribers on the unit were invited to complete
an online questionnaire which included questions on previous