positive results from 1249 CSF samples tested using FA-M/E technology. Of the positive analyses, 50 (19.5%) were bacterial and 206 (80.5%) were viral/fungal pathogens. 41/50 (82%) bacterial isolates were TP and 6/50 (12%) False Positives (FP) and 3 unconfirmed by reference tests. The bacterial analytes detected include *S.Pneumonia* 19 (15 TP, 2 FP, 2 unconfirmed) *S.Agalactiae* 13 (11 TP, 2 FP), *E.Coli* K1 13 (11TP, 1 FP, 1 unconfirmed), *HiB* 3 (2 TP, 1 FP), *N. Meningitidis* 1 (1 TP), *L. Monocytogenes* 1 (1 TP). 41/50 (82%) bacterial isolates were TP's confirmed by reference testing, 6/50 (12%) were FP and 3/50 (6%) were unconfirmed by reference testing.

Conclusions The FA-M/E panel can detect 6 common bacterial organisms in the CSF with a TP rate of 82% and a FP rate of 12%. The PCR panels ability to rapidly identify CNS pathogens within 60 minutes makes it a useful diagnostic tool in emergency settings. However five out of eight studies included were retrospective and as a result clinical data may have been lost, some samples were retrospectively tested after 2 years, thus we cannot determine the exact impact the FA-M/E would have on clinical outcomes. Due to study design or insufficient CSF volume, many samples did not undergo adjudicatory testing to validate FA-M/E panel results.

The FA-M/E panel and rapid PCR panels are feasible adjuncts to conventional testing but larger studies in different settings are required before they can replace current practice.

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PRESCRIPTION OF PARACETAMOL AS AN ANTIPYRETIC IN PAEDIATRICS: ANALYSIS OF PRACTICES IN A NATIONAL ACUTE AND TEACHING HOSPITAL

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Background Prescription errors represent a pervasive problem found across many hospitals and the ubiquity by which antipyretics are prescribed in paediatrics makes them a frequent source of error. Such avoidable errors not only lead to actual physical harm for the child, but also incur financial and legal costs on the service provider, dampen public confidence in the health care system and predispose to negative psychological effects on both the patient and prescriber.

Objectives Prescriptions of Paracetamol for paediatric inpatients at Mater Dei Hospital, a national acute and teaching hospital in Malta, were analysed for sources of error. The British National Formulary for Children (BNFC) was used to establish the correct prescribing standard.

Methods Treatment charts of all admissions to medical paediatric inpatient wards were reviewed daily over a four-week period. Prescriptions for Paracetamol were assessed for legibility, ineditibility, approved drug nomenclature, correct dose and dosing frequency, approved dosing interval abbreviations, writing of minimum dosing interval for pro re nata (PRN), appropriate dating, prescriber signature and prescriber designation. Treatment charts were also analysed to assess accurate writing of patient name, identification number, age, date of birth, height, weight, and allergies.

Paracetamol prescriptions for indications other than fever were excluded.

Results A total of 72 treatment charts were analysed of which 44 contained Paracetamol prescriptions. Age ranged from 1 day to 13 years. 93.2% of all prescriptions were on a PRN basis. Legibility and ineditibility met the BNFC standard in 100% of cases. Approved drug nomenclature was used in 97.7% of prescriptions.

With regards to dosing, 54.5% of prescriptions did not follow the standard leading to incorrect dosing. Of these cases, 50% were due to the same dose of Paracetamol being prescribed for the oral, intravenous and rectal routes used for the same child. In the other 50%, the oral dose was calculated by weight instead of using fixed dose ranges based on age. Where errors were made, patients were overdosed by an average of 20% more than the recommended maximum dose. Correct dosing frequency was present in 100% of cases. 97.7% of dosing interval abbreviations were not according to guidelines, mainly because English abbreviations were not written in full. PRN was not written in 51.2% of Paracetamol PRN prescriptions.

Dating was correct in 95.5% of cases. Prescriber signature present in 97.7% of cases and prescriber designation in 95.5% of prescriptions.

The following table illustrates data related to treatment charts:

Patient Criteria	Percentage Correctly Completed
Name	94.4
Identification Number	94.4
Age	83.3
Birth date	22.2
Height	1.4
Weight	76.4
Allergies	54.2

Conclusions Adherence to proper prescription practices has been repeatedly emphasised by regulatory bodies and safe prescription is considered an integral part of sound medical practice. Greater attention needs to be paid to appropriate dosing according to indication and route to prevent overdosing. Correct writing of dosing interval abbreviations, as well as recording of weight and allergies in treatment charts is also essential.

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WHISPER DOWN THE LANE: OVERCOMING COMMUNICATION CHALLENGES WEARING REUSABLE FFP3 MASKS

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Background APLS teaches us the importance of clear and accurate communication. Anecdotally our team noted that communication wearing re-useable masks was challenging.

Concerned this posed a risk to our patients, we utilised well-known children's games to assess the problem.

Objectives Could we accurately pass on verbal information in our resus bay whilst wearing reusable FFP3 masks?

Methods

Whisper down the lane: 4 participants wore FFP3. Additional participant stood 2m apart and gave instruction wearing a surgical mask. 3 scenarios trialled twice, once using a common APLS instruction (e.g. please give phenytoin 20mg/kg IV over 20 minutes – 200mg total please) and once a non-sensical instruction participants had no cognitive bias towards (e.g. cow really needs to jump in the bucket to impress the pig). Participant 1 relayed instruction to participant 2 as they entered the room and so on.

Scenario 1 – no background noise, standing 2 metres apart

Scenario 2 – background noise (defibrillator/monitors on, 'baby shark' playing in the background)

Scenario 3 – background noise and participant receiving instruction distracted building tower of blocks.

Treasure hunt: One registrar relayed 8 simple instructions to one SHO e.g. 'pass me a blue cannula'. Different SHO in each scenario. 3 scenarios with the same registrar wearing surgical mask, FFP3 or reusable FFP3 and microphone.

Measures:

Whisper down the lane:

- Did person 4 accurately report back the initial instruction?
- Subjective assessment on safety, difficulty and risk of drug error.

Treasure hunt:

- Number of times instructions given (minimum 8)
- Total time taken.
- Subjective assessment of safety and risk of drug error.

Results Whisper down the lane Table 1:

Scenario number	Instruction number 1 – passed on accurately?	Instruction number 2 – passed on accurately?
1	Yes	Yes
2	Yes	Yes
3	No	No

Whisper down the lane Table 2:

Scenario number	Did you feel there was a risk of a drug error? (N = 5) Yes/No (%)	Was communication difficult? (N = 4) Yes/No (%)	Was communication unsafe? (N = 5) Yes/No (%)
1	No (100%)	No (100%)	No (100%)
2	Yes (100%)	Yes (100%)	No (80%) Yes (20%)
3	Yes (100%)	Yes (100%)	Yes (100%)

Treasure Hunt Results:

Whilst wearing FFP3 100% of participants felt that communication was difficult, unsafe with increased risk of making a drug error. This fell to 0% when adding in the microphone with FFP3.

Table 3:

Scenario number	Total time taken:	Total number of instructions given:	Was prescription instruction correct?
1 surgical mask	1 minute 53 seconds	8	Yes
2 FFP	2 minutes 19 seconds	16	Yes
3 FFP + microphone	1 minute 18 secs	8	Yes

Conclusions 'Whisper down the lane' clearly demonstrated potentially significant communication difficulties whilst wearing reusable FFP3 masks. Realistically background noise from human factors such as the patient or relatives cannot always be controlled. Therefore finding an effective solution to ensure safe, patient care is vital. As a direct result of our project, our local trust safety group are investing in testing and finding solutions including microphones. We believe this demonstrates that even smaller, creative projects can have a positive impact on patient safety.

British Society of Paediatric Endocrinology and Diabetes

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BE FIT STUDY: BIOMARKERS RELATED TO WEIGHT AND LIFESTYLE IN YOUNG ADULTS

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Background The prevalence of obesity is rising, with a dramatically earlier onset. The 'seeds of adult disease' will manifest initially as pre-clinical abnormalities in critical organs such as the liver, heart, and systemic vasculature. However, estimates of obesity-related disease in younger adults are unreliable owing to the lack of effective screening measures. Clinical practice relies primarily on body mass index (BMI), family history, and blood tests, often neglecting to consider or address modifiable lifestyle factors. Magnetic Resonance Imaging can be used as a fast and accurate screening tool that can identify individuals at risk, even at an early stage when the disease is still reversible.

Objectives This is a feasibility study to enable future research on the deleterious effects of modern lifestyles in young persons aged 16–25 years. We will explore the inter-relationship between *lifestyle* (modifiable factors including physical activity, diet and sleep pattern) and *general health* (including liver and cardiovascular health, and body composition).

Methods Twelve participants, 4 female, 8 male; mean age 21.5 ± 2.8 years; BMI 28.6 ± 4.4 kg/m²; 4 had a BMI within the normal range, 8 were either obese or overweight (BMI >25). Each participant attended two sessions. In the first session, they underwent an oral glucose tolerance test, liver function tests, and a VO_{2max} measurement. Between the two sessions their physical activity was monitored for a week using a wrist monitor, and they completed a screentime and diet diary. Finally, liver and cardiac structure and function were assessed using MRI.