Abstract 459 Table 1 Median (inter-quartile range) percentage of time preterm infants spend outside SpO2 target range

Percentage of time preterm infants	4 hours	8 hours	12 hours	24 hours
<34 weeks spent with SpO2 <90%	17 (8–24)	18 (10–27)	17 (10–24)	16 (11–23)
<34 weeks spent with SpO2 >95%	49 (32–74)	50 (36–75)	52 (36–73)	53 (35–72)
<27 weeks spent with SpO2 <90%	19.5 (14–32.5)	21.5 (14–32)	20 (13–30)	20 (14–32)
<27 weeks spent with SpO2 >95%	58.5 (32–74)	60.5 (40–76)	58.5 (38.5–73)	57.5 (37–72)
<28 days spent with SpO2 <90%	13 (4–20)	14 (3–22)	13 (4–20)	14 (8–20)
<28 days spent with SpO2 >95%	38 (26–77)	46 (33–74)	41 (36–74)	48 (30–72)

weeks spent more time with SpO2 <90% at 4-, 8-, 12- and 24-hour histogram reviews ($p < 0.001$); there was no significant difference in time spent with SpO2 >95%. Infants >28 days spent significantly more time with SpO2 <90% compared to infants <28 days at 4-, 8-, 12- and 24-hour histogram reviews ($p < 0.05$); there was no significant difference in time spent with SpO2 >95%. Ventilated infants spent significantly more time with SpO2 <90% compared to infants on other modes of respiratory support ($p < 0.001$). There were strong correlations between 4-hour and 24-hour histograms for both hypoxemia and hyperoxemia, with R2 values of 0.7 and 0.8 respectively.

Conclusions Maintaining normoxia for preterm infants is challenging, with substantial amounts of time spent outside of the SpO2 target range. There is strong correlations between 4-hour and 24-hour histograms, which could help in assessing a preterm infants' response to changes in respiratory management.

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REVIEW OF PAEDIATRIC FOOD CHALLENGES: COULD MORE ALMOND AND TUNA CHALLENGES BE SAFELY PERFORMED AT HOME?

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Background Clinicians use serum immunoglobulin E (IgE) and/or skin prick test (SPT) to help decide whether a child is suitable for a food challenge. Performing a food challenge (FC) or supervised feed (SF) is the gold standard for a definitive diagnosis of type 1 food allergy. Food challenges are labour intensive and our unit currently has long waiting lists for food challenges, exacerbated by the COVID 19 pandemic. This study aims to determine if the current thresholds for home introduction can be altered.

Objectives

1. To evaluate the reaction rate, and the severity of reactions, of tuna and almond challenges performed in our hospital.
2. To use results collected to examine whether the thresholds for home introduction of both tuna and almond should be reviewed.

Methods Retrospective data analysis of tuna and almond challenges performed in the Paediatric Allergy Service at St George's Hospital. Electronic medical records were reviewed of all patients who underwent an oral food challenge between

April 2018 to October 2020 at St George's Hospital. Clinical history, results of SPT and specific IgE to tuna and almond and the outcome of the challenge were extracted from the hospital database.

Results Tuna

14 children underwent a tuna food challenge. None were observed to have a positive result. One child had an inconclusive challenge as the final sample was refused; prior to this the child did not experience any signs of an allergy reaction. All these children had a known allergy to other fish.

Almond

77 children underwent an almond only challenge; 8% (6) of these were supervised feeds, the other 92% (71) were food challenges. 8% (6) children were observed to have a positive almond challenge. One child had an inconclusive challenge as the final sample was refused; prior to this the child did not experience any signs of an allergy reaction.

50% (3) of children with a positive challenge were managed with cetirizine alone, at the correct dosage for age. The other 3 children complained of mild symptoms which resolved with no treatment.

Conclusions No children had a positive tuna challenge and the thresholds for home introduction of tuna could be reviewed and relaxed.

96% of children who had an SPT less than 2mm tolerated the almond challenge. For those that reacted, all reactions observed were mild to moderate. The threshold for home introduction of almond could also be reviewed and relaxed.

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DOES HAVING SIMULATION DEBRIEFS RUN BY HUMAN FACTOR EXPERTS IMPACT LEARNERS UNDERSTANDING

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Background During the covid pandemic, we were fortunate enough to be joined by airline pilots through Project Wingman. As we are aware that pilot training is often gold standard for human factors training, we utilised this rare opportunity and formulated a project working alongside them looking at the impact debriefs by pilots could have on simulation training, focusing on human factors. In simulation, we often focus on clinical learning, whereas research shows that the majority of near miss and never events, which