

Fortifier booster guidance for use in NHS Lothian

Breast milk fortifier (BMF) is a powdered product formulated to support the nutritional needs for optimal growth of preterm infants when added to expressed human milk. It is recommended by the European Society of Paediatric, Gastroenterology, Hepatology and Nutrition (ESPGHAN) for preterm infants receiving human milk to receive multi nutrient fortifier to promote growth during their inpatient stay (ESPGHAN 2022). There are also likely benefits in continuing this post discharge particularly for infants who are establishing breastfeeding and have not yet reached 40/40 completed weeks of gestation. While breastfeeding will meet all the nutritional requirements of full-term infants, these preterm infants may need additional protein, minerals and possibly energy to optimise growth, bone mineralisation and neurological development. (McCormick et al 2021)

Post discharge, fortifier is given as a 'booster' which is 5ml of EBM mixed with 2 x sachets of SMA Breastmilk fortifier (BMF). The booster volume is purposely small to allow mums and babies to concentrate on breastfeeding rather than receiving larger volume top ups to promote weight gain. Boosters should be administered before a breastfeed. It is recognised that some babies may also have EBM given by bottle. In the case of a bottle feed, the booster can be added directly to any volume of EBM.

Commonly asked questions are noted in the table below:

Who should receive boosters?	<ul style="list-style-type: none"> Infants <34/40 gestational age and/or <1500g at birth are most likely to benefit from boosters to meet their nutritional needs. Infants of higher preterm gestations at birth may also benefit to support breastfeeding and growth. These babies can be discussed within the wider MDT.
When should babies start boosters?	<ul style="list-style-type: none"> Boosters should ideally be started on the NNU prior to discharge if exclusive breastfeeding is likely and plans are being made for discharge home. There may be cases where boosters are started in the community which will involve support from the Neonatal Community Outreach Team (NCOT) / neonatal dietetics.
How should boosters be made up?	<ul style="list-style-type: none"> Wash hands and wear gloves Remove 5ml of MEBM from the fridge and warm or use 5 ml of freshly expressed breastmilk – add this to a bottle To make a booster add 2 x sachets of SMA BMF to this volume of warmed MEBM and swirl gently to mix Give this booster immediately to the baby via a syringe or teat before a breastfeed (Do not store this concentrate for later use) This booster can also be added to any volume of EBM if this is given by bottle
How many boosters should be given /day?	<ul style="list-style-type: none"> Boosters should be given x 5/day (10 sachets of SMA BMF/day) Ideally boosters should be given during the day so that minimal fuss is required for feeding at night
How should boosters be prescribed on the ward?	<ul style="list-style-type: none"> The prescription for BMF is written in the 'as required' section of the drug chart It has been agreed that SMA Gold Prem Breast Milk Fortifier can be recorded on the prescription chart as SMA BMF Prescribe as 2 x 1g sachets of SMA BMF/5ml MEBM x 5/day (Max 10 x 1g sachets day) Oral/NGT
What additional supplementation should be provided with boosters?	<p>While on SMA BMF:</p> <ul style="list-style-type: none"> Iron supplementation should be given as per local policy at 0.2ml/kg/day of Sodium Ferredetate and from 6/52 after birth. Vitamin supplementation is required which is given as 0.6ml/day of Abidec or Dalivit

Fortifier booster guidance for use in NHS Lothian

Supplies for home

- Please ensure parents are given 1 - 2 x boxes of fortifier on discharge as local supplies allow. Please note fortifier is only available from the hospital and cannot be prescribed in the community.

Follow Up

- Babies who are discharged home on boosters will receive follow up from the NCOT / neonatal dietetics as required.
- Fortifier will be gradually reduced as per review of intake and growth, and then stopped usually by term.

Practicalities

- Please be aware that due to the reaction of iron with lactoferrin in breastmilk the milk may appear pink. This is not a cause for concern.

References

- European Society of Paediatric Gastroenterology, Hepatology and Nutrition (ESPGHAN) Committee on Nutrition (2022) Enteral Nutrition in Preterm Infants: ESPGHAN Position Paper 2022. Available at: <https://www.espghan.org/knowledge-center/publications/Nutrition/2022-enteral-nutrition> (Accessed 02.12.2022)
- McCormick K, King C, Clarke S, Jarvis C, Johnson M, Parretti HM, Greene N, Males J. The role of breast milk fortifier in the post-discharge nutrition of preterm infants. Br J Hosp Med. 2021. <https://doi.org/10.12968/hmed.2021.010>