Feeding the small and sick newborn in the COVID-19 pandemic

University of Nairobi

saving children's lives
ETAT+
Emergency Triage Assessment and Treatment plus admission

An initiative of ETAT+ Trainers

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NEST360°

Outline

Prof. Grace Irimu (Facilitator)
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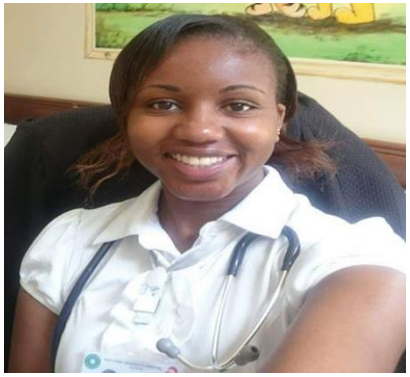
Dr. Joy Odhiambo
Ten steps to successful breastfeeding

Dr. Muthoni Ogola
Facilitator

Edith Gicheha
Breastmilk Expression and Usage

Dr. Rachael Kanguha (Host)
Introduction



Dr. Betty Mburu
Breastmilk Storage

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Outline

Dr. Hildy Nvonako
Trophic feeds

Dr. Fareen Musa
Breastfeeding in special groups

Dr. MaryAnne Murugami.
Rapid versus slow feeding and gastric residuals

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Introduction

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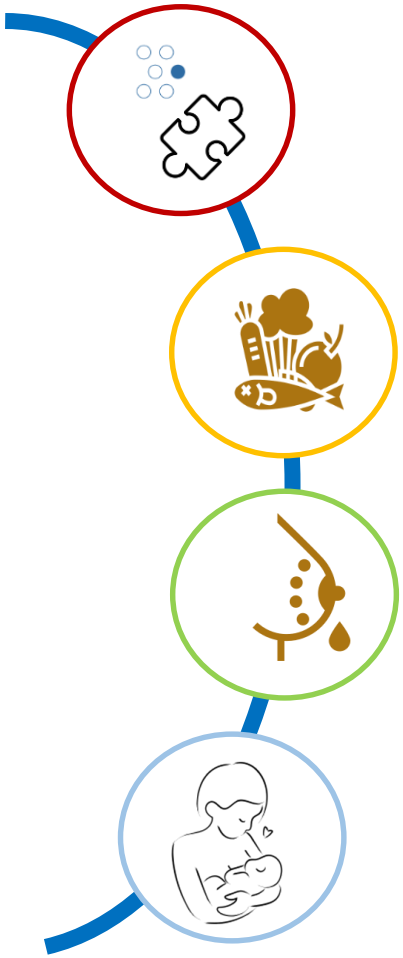
Appropriate breastfeeding practices

- Initiating breastfeeding immediately (or within the first 5 minutes)
- Exclusive breastfeeding until 6 months age
- Continued breastfeeding to at least up-to 2 years of age
- Breastfeeding on demand, day and night

Suboptimal breastfeeding practices contribute to 11.6% of mortality in the under 5's globally

Topics covered last week



Composition of breastmilk

Benefits of breastfeeding

Milk production, let down reflex and hormones involved

Techniques of breastfeeding

BFHI and 10 steps of successful breastfeeding

Box 1. Ten Steps to Successful Breastfeeding (revised 2018)

Critical management procedures

1. a. Comply fully with the *International Code of Marketing of Breast-milk Substitutes* and relevant World Health Assembly resolutions.

   b. Have a written infant feeding policy that is routinely communicated to staff and parents.

   c. Establish ongoing monitoring and data-management systems.

2. Ensure that staff have sufficient knowledge, competence and skills to support breastfeeding.

Key clinical practices

3. Discuss the importance and management of breastfeeding with pregnant women and their families.
4. Facilitate immediate and uninterrupted skin-to-skin contact and support mothers to initiate breastfeeding as soon as possible after birth.
5. Support mothers to initiate and maintain breastfeeding and manage common difficulties.
6. Do not provide breastfed newborns any food or fluids other than breast milk, unless medically indicated.
7. Enable mothers and their infants to remain together and to practise rooming-in 24 hours a day.
8. Support mothers to recognize and respond to their infants' cues for feeding.
9. Counsel mothers on the use and risks of feeding bottles, teats and pacifiers.
10. Coordinate discharge so that parents and their infants have timely access to ongoing support and care.

Key clinical practices

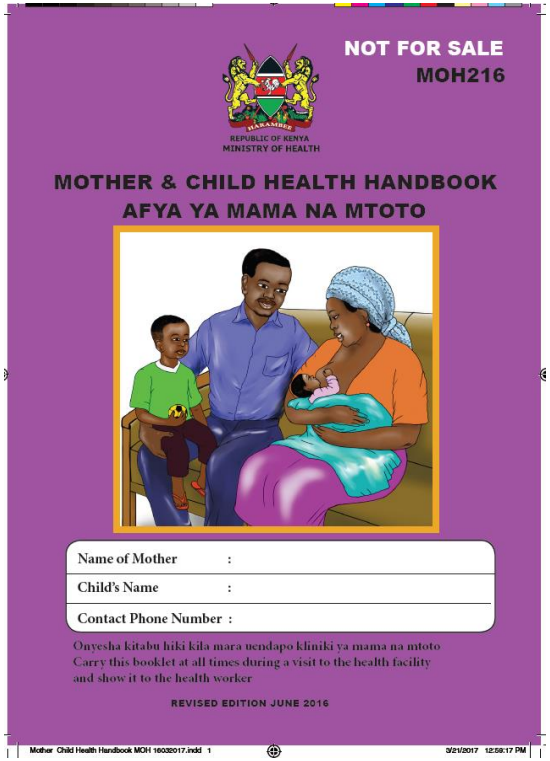
STEP 3

Discuss the importance and management of breastfeeding with pregnant women and their families

Antenatal discussion should:

- Give information on benefits of breastfeeding
- Educate about breastfeeding technique
- Physical examination of the breast and check for inverted nipple

STEP 3: Focus on antenatal education



ANTENATAL PROFILE

- ☐ Hb
- ☐ Blood Group
- ☐ Rhesus
- ☐ Serology (VDRL/RPR)
- ☐ TB Screening as per the intensive case finding tool.
- IPT Isoniazed Date Given — Next Visit
- ☐ HIV:
  - Reactive ☐
  - Non Reactive ☐
  - ☐ Not tested ☐
- ☐ Urinalysis
- Couple HIV Counseling and testing done — Yes ☐ No ☐
- If No, Councel and test

INFANT FEEDING

Infant feeding Counseling done — Yes ☐ No ☐

Counseling on exclusive breastfeeding done — Yes ☐ No ☐

Emphasis on breastfeeding education at ANC

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Step 4

"Facilitate immediate and uninterrupted skin to skin contact and support mothers to initiate breastfeeding as soon as possible after birth."

Benefits

- Increased breastfeeding duration
- Better cardiorespiratory stability
- Higher blood glucose
- Decrease in infant crying
- Maternal- infant bonding
- Thermoregulation

Early Skin-To-Skin Contact for Mothers and Their Healthy Newborn Infants *Elizabeth R Moore [1], Nils Bergman, Gene C Anderson, Nancy Medley Cochrane Database Syst Rev 2016*

Step 6

Do not provide breastfed newborns any food or fluids other than breast milk unless medically indicated.

“ Prioritize breastfeeding > EBM> Donor human milk > formula”

Breastmilk Expression, Use and Storage

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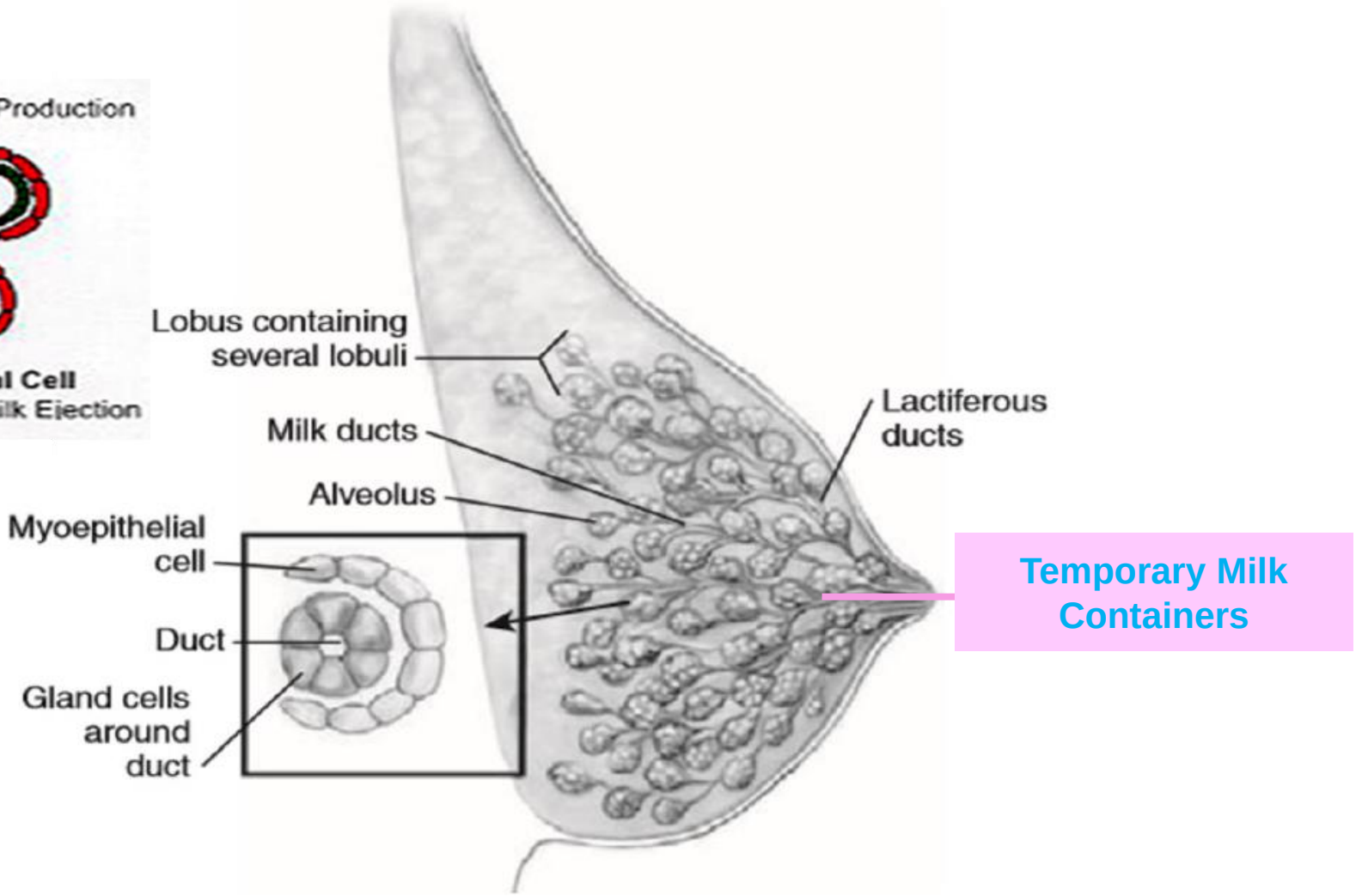
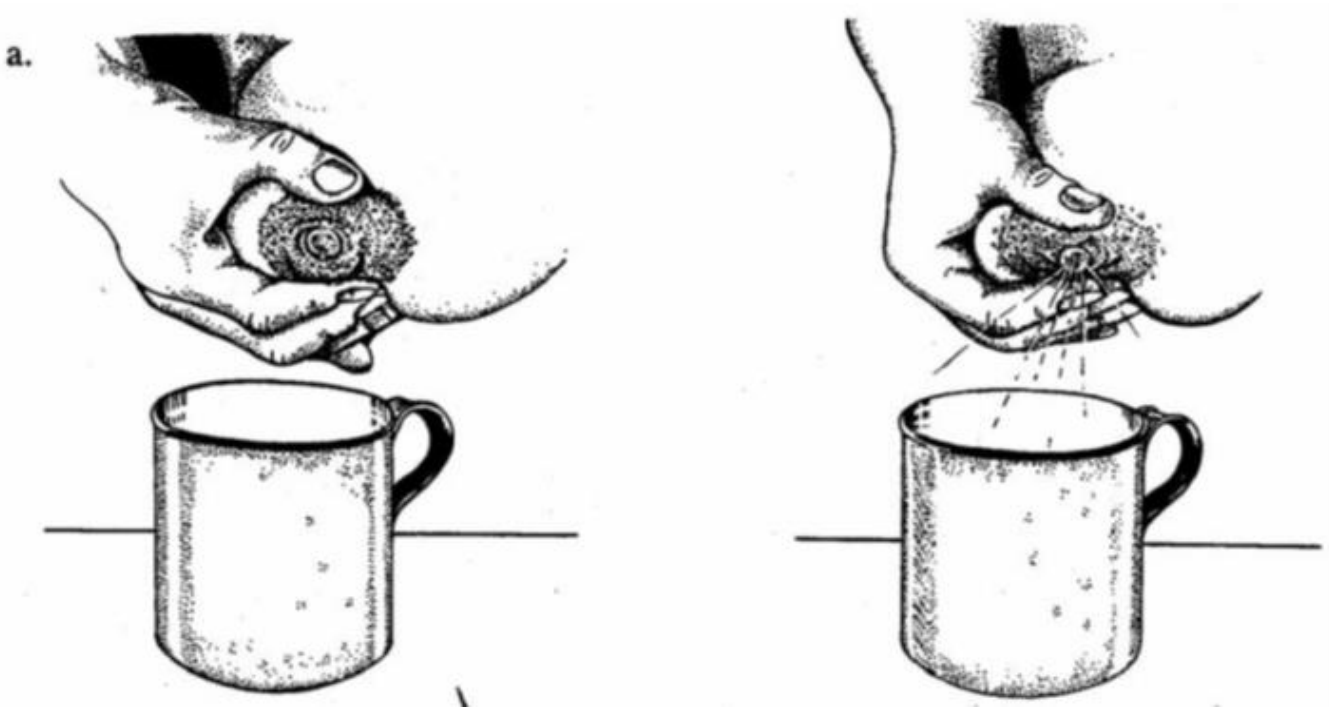
The Lactating Breast



Hand expression of breastmilk



- Push breast back towards the chest wall
- Press the thumb and the supporting fingers together and then release.
- Repeat this step until breast is empty

Cup Feeding Technique

1. Observe for hunger cues
2. Prepare and put appropriate volume of milk in a cup
3. Sit the baby at 90^0 supporting the baby's head, neck and back.
4. Place the cup on the lower lip and tilt the cup so the milk reaches the baby lips
5. Let the baby lick the milk using the tongue
6. Continue tilting the cup as the baby continues to lick the milk.
7. When baby has taken enough, he will start closing his mouth and even fall asleep

- Do not feed baby when lying down
- Do not pour milk into the mouth
- Do not feed a sleeping baby

Nasal Gastric Tube Insertion

Sizing the NGT

- Measure the distance from the nose to the ear lobe, then to the midpoint between xiphisternum (epigastrium) and umbilicus.
- Mark the tube at this point

Inserting

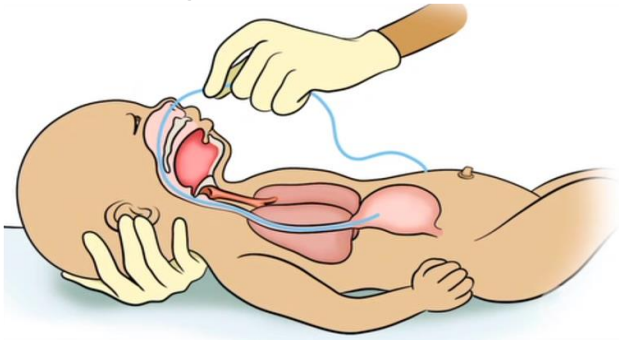
- Lubricate the tip of the NGT with breast milk/water
- Insert until the measured distance is reached
- Fix the tube with tape at the nose

Confirming position

- Check that aspirate turns blue litmus paper pink.
- If no aspirate is obtained, inject air down the tube and listen over the abdomen with a stethoscope
- Before feeding always confirm correct position

a) Correct Sizing

b) Correct Insertion



c) Correct Placement

Monitoring Feeds

[HOSPITAL NAME] NEONATAL MONITORING CHART + CPAP Version 2.5

Name	IP NO	Sex M ☐ F ☐	D.O.A	D.O.B
Date today	Diagnosis			
Birth Wt gm	*Interventions: CPAP ☐ Oxygen ☐ Phototherapy ☐ Blood tranfusion ☐ Exchange transfusion ☐ KMC ☐*			

Daily Clinician Feed and Fluid prescription

Day of Life | Current Wt = gm

Total input(feed and fluid) 24hrs = ml

Feed: BF ☐ EBM ☐ Term Formula ☐ Pre-Term Formula ☐

Route: Cup☐ NGT☐ OGT☐

Volume & Frequency = _____ml 3hrly ☐ 2hrly ☐

Total 24hr Volume = _____ml

IV Fluid & Additives	Vol (ml)	Duration

Other prescribing instructions

Clinician's name Time:

Daily IV Fluid Nursing plan

Start time:

Hourly rate= _____ml (____ drops/min)

Planned vol = ml in hrs

		Monitoring Freq hrs | Time											
Vitals	Temp (°C)												
	Pulse (b/min)												
	Resp Rate (b/min)												
	Oxy Sat (%) or Cy^0 Cy^+												
Assessment	Resp Distress 0,+,+++												
	CPAP Pressure (cm H_2O)												
	FiO_2 (%)												
	Jaundice 0,+,+++												
	Apnoea Y/N												
	Blood Sugar (mmol/l)												
	Completed by (name)												
Feed	Breastfeeding sufficient Y/N												
	EBM vol given (ml)												
	Formula vol given (ml)												
Fluid	IV volume given												
	IV Line working Y/N												
Output	Vomit Y/N												
	Urine(diapers changed)												
	Stool Y/N												
	Completed by (name)												

Morning shift notes
Category: A☐ B☐ C☐
Total feed+fluid in this shift_____ ml
Completed by (name)

Afternoon shift notes
Category: A☐ B☐ C☐
Total feed+fluid in this shift_____ ml
Completed by (name)

Night shift notes
Category: A☐ B☐ C☐
Total feed+fluid in this shift_____ ml
Total feed+fluid in 24hrs_____ ml
Deficit_____ ml
Completed by (name)

Jaundice 0 none, +mild(face),+++severe(feet) Tick the category of baby after assessment Alerts : circle readings outside normal range with red pen and action

Preparation of breastmilk storage

Hand Hygiene

- Mothers should wash hands with soap and water before expressing and storing milk.
- Cleaning of breasts for expression not necessary.

Risk of Contamination

- The risk of milk contamination when using pumps or during hand expression is the same. Always maintain hygiene

Storage Container to Avoid

- Glass and polypropylene: Adherence of lipid soluble nutrients.
- Polyethylene: 60% drop in antibodies and the milk's ability to kill bacteria.
- Plastic bottles with Bisphenol A (BPA): endocrine disruptor

Care of Containers

- Pump kits for expression and containers for storage should be cleaned with hot soapy water, them rinsed and air dried.

Anne Eglash et al ABM Clinical Protocol #8: Human Milk Storage Information for Home Use for Full-Term Infants, Revised 2017

Milk storage guidelines

Storage	Temp	Recommended Duration
• Room Temperature	16–25°C 27-32°C	8 hours 4 hours
• Insulated cooler bags/boxes with icepacks	15°C	24 hours
• Refrigerator	3 - 5°C	4 days
• Freezer Compartment inside Fridge (one door)	-15°C	2 weeks
• Self contained freezer unit of a fridge (two door)	-18°C	6 months
• Chest Deep Freezer	-20°C	12 months

Anne Eglash et al ABM Clinical Protocol #8: Human Milk Storage Information for Home Use for Full-Term Infants, Revised 2017

Using stored human milk

- Use **First in First Out** principle
- Frozen milk should be **slowly thawed** in the refrigerator over night - less fat loss.
- **AVOID** thawing milk in a hot water bath and microwave.
- Warm thawed milk by placing the container containing the milk in a bowl with warm water (37-40^{0}C)
- Use breast milk within 24 hours of thawing in the refrigerator
- Once breast milk is brought to room temperature it should be used within 2 hours
- **NEVER** refreeze breast milk once it has been thawed.

Anne Eglash et al ABM Clinical Protocol #8: Human Milk Storage Information for Home Use for Full-Term Infants, Revised 2017

Feeding regimes for stable and unstable newborns: The value of trophic feeds

Definition

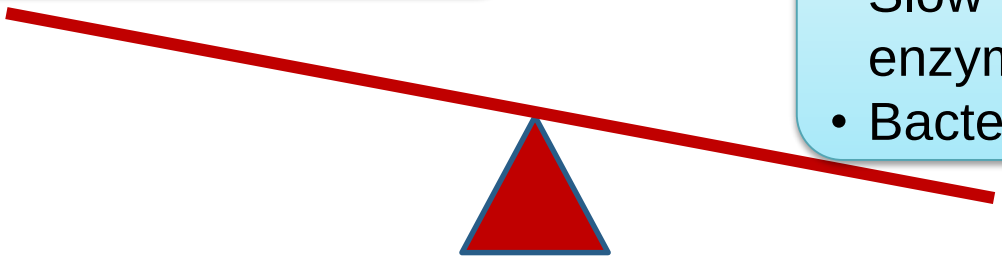
- Nutritionally insignificant volumes of enteral substrate
  Volume of trophic feed – **12 – 24 ml/kg/d .**
- Insufficient to meet the nutritional requirements of the preterm.
- Not considered trophic if **>** 25% of newborn's nutritional needs
- Aims to accelerate the **gastrointestinal, physiological, endocrine and metabolic maturity.**

Journal of Pediatric Gastroenterology and Nutrition 38:237–238 © March 2004 Lippincott Williams & Wilkins, Inc., Philadelphia

Physiological Effects of trophic feeds on GIT

Early Feeding

- Enhanced GIT absorption
- Stimulates vital processes
- Improves digestive tolerance
- Enhances Growth



Delayed Feeding

- GIT mucosal atrophy
- Reduced intestinal size
- Slow maturation of GIT enzymes
- Bacterial overgrowth

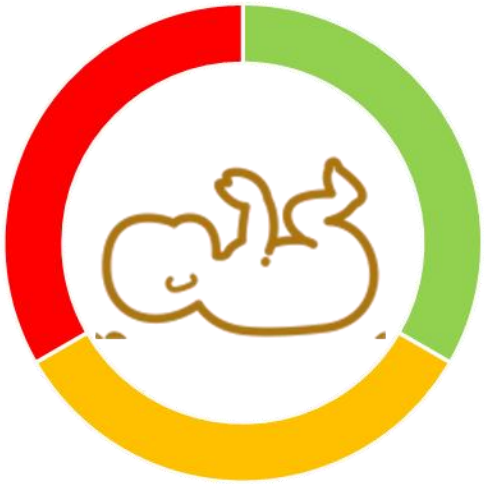
Breastfeeding, A Guide for the Medical Profession, 8th EDITION by Ruth A. Lawrence & Robert M. Lawrence

Rapid versus slow feeding among preterms/VLBW

Advancement of enteral feeds in preterms/VLBWs

- **Goal of preterm nutrition-** achieve a postnatal growth rate approximating that of the normal fetus of the same gestational age.

5-15% loss of BWT (regain in 10-14days)



Weight gain 15g/kg/d

Energy requirement 120kcal/kg/d (105-130kcal/kg/d)

ESPGHAN/ESPEN/ESPR/CSPEN guidelines on paediatric nutrition 2018

Advancement of enteral feeds in preterms/VLBWs

- Timing of introduction and advancement of feeds for preterms/VLBW infants has important outcomes.[1]
- **Slow advancement** – increase of feeds by <24ml/kg/d (15-20ml/kg/d)
- **Rapid advancement** – increase by 30-40ml/kg/d
- **Full enteral feeds** – 150mls/kg/d (**max** 180ml/kg/d) [2]

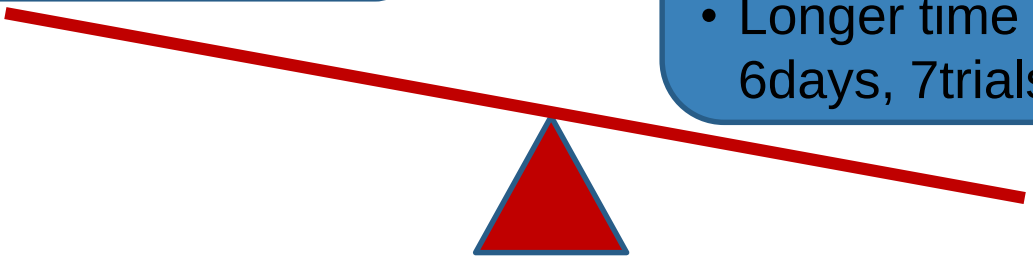
Aim to reach full enteral feeds by:
<1000g- 2weeks
1000-1500g- 1week

1. *SIFT Investigators Group. Early enteral feeding strategies for very preterm infants: current evidence from Cochrane reviews. Arch Dis Child Fetal Neonatal Ed. 2013;98(6):F470–F472*
2. *Dutta S, et al. Guidelines for feeding very low birth weight infants. Nutrients. 2015 Jan 8;7(1):423-42.*

Slow advancement of enteral feeds in preterms/VLBWs

NO EFFECT ON:[3]
- Risk of NEC
- Mortality risk
- Feeding intolerance

Disadvantages
- Delay established full enteral nutrition (2-4days, 7 trials)[4]
- Prolonged Parenteral nutrition[4]
- Higher risk for invasive infection
- Longer time to gain weight (2-6days, 7trials)[4]



3. *Oddie SJ, Young L, McGuire W. Slow advancement of enteral feed volumes to prevent necrotising enterocolitis in very low birth weight infants. Cochrane Database of Systematic Reviews 2017*
4. *Karagol BS, et. al. Randomized control trial of slow versus rapid enteral feeding advancements on the clinical outcomes of preterm infants with 750-1250g. JPEN 2013.*

WHO Recommendation for advancing enteral feeds in preterms/VLBW(1kg-<1.5kg)

> **In VLBW infants who need to be fed by an alternative oral feeding method or given intra-gastric tube feeds, feed volumes can be increased by up to 30ml/kg/d with careful monitoring for feed intolerance. [5]**

5. *WHO recommendations on Newborn Health, May 2017*

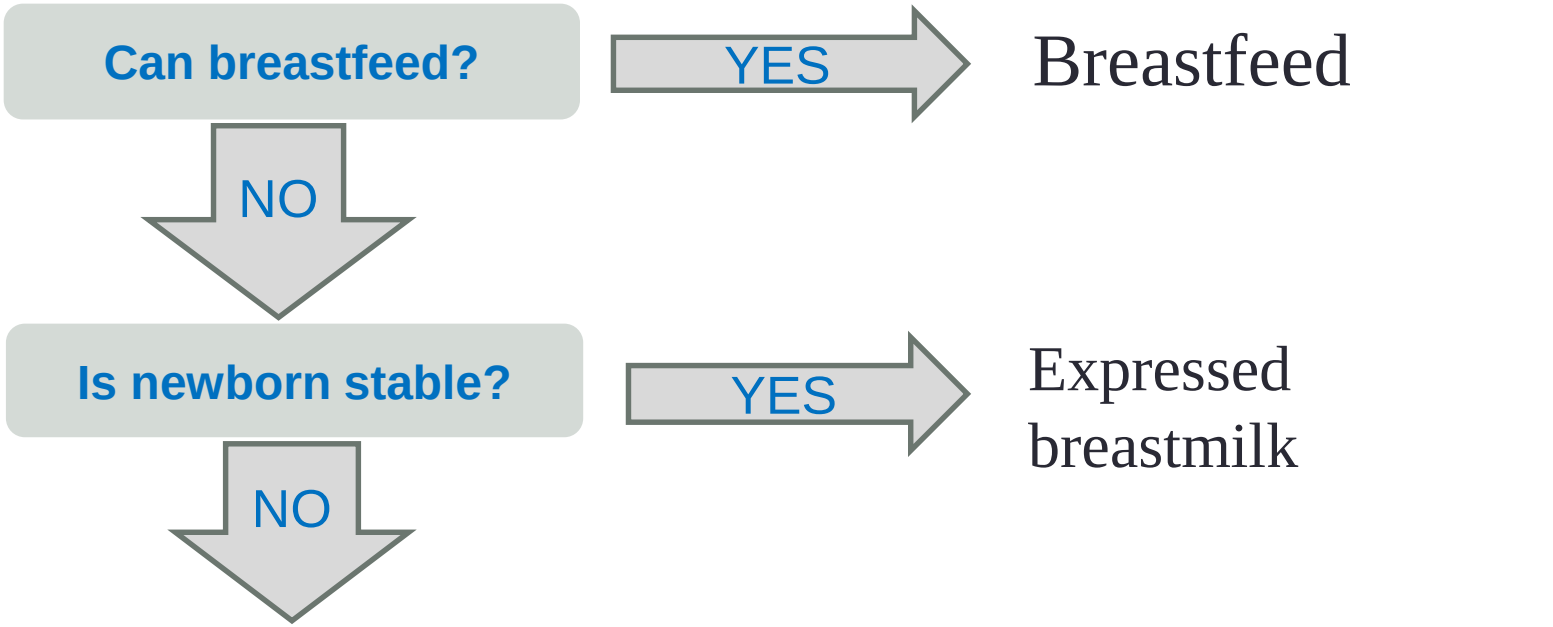
Total fluids (IVF+EBM) recommendations in preterms/VLBW

Weight	Day1	Day 2 to Day 7	Day 8 to 1 month of life
≥1500g	60 mls/kg/d	Increase by 20mls/kg/d to full feeds 150ml/kg/d	150-160mls/kg/d
<1500g	80mls/kg/d	Increase by 20mls/kg/d to full feeds 150ml/kg/d	150-160mls/kg/d

- Max IVF – 150mls/kg/d, max EBM- 180ml/kg/d
- Start Na^+ and K^+ supplementation after 48hrs:
  - Na^+ - 3mmol/kg/d(19ml/kg/day N/S), K^+- 1-2mmol/kg/d

Jochum F, et al., ESPGHAN/ESPEN/ESPR guidelines on pediatric parenteral nutrition: Fluid and electrolytes, Clinical Nutrition (2018)

Neonatal Feeding Recommendations



Day 1: 10% Dextrose plus trophic feed (15-20ml/kg/d; 2ml/kg per feed)
Day 2 : Start EBM(30ml/kg/day), reduce IVF

Unstable newborns : Convulsions, Unconscious, Severe respiratory distress evidenced by severe drawing, absent bowel sounds

EBM/Fluid volume on Day 1 of life based on weight :
Less than 1500g 80mls/kg/day ≥ 1500g – 60mls/kg/day

Feeding Recommendations for stable newly born breastfeed

Assess shortly after birth: Birth weight? Able to breastfeed?

Weight < 1500g

Start with EBM 80 mls/kg/day on day 1 increasing by 20mls/kg/day.

- Start feeds with EBM of 5 mls and increase by 5 mls each 3 hourly feed until full 3 hourly feed volume achieved.
- Eg 1000gm baby EBM = 1kg X80 =80ml/day ÷8 = 10mls 3hrly feeds. First feed 5mls then 10mls every 3hrs

Weight ≥1500g and not able to breastfeed adequately (not on IVF) feed by cup based on infants hunger cues.

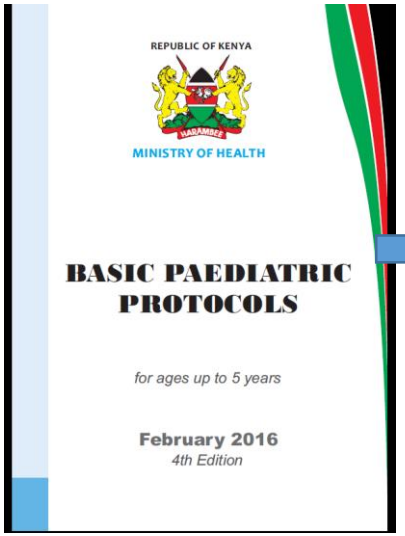
Calculating feeds

Birth weight – 1.2kg – stable

	Total fluid required /day	Three hourly feeds
Day 1	80 X 1.2 =96ml	12
Day 2	100 X 1.2= 120ml	15
Day 3	120 X 1.2 =144ml	18
Day 4	140 X 1.2 = 168ml	21
Day 5	160 X1.2 = 192 ml	24

Start at 80ml/kg/day volume of feeds.
Increase by 20ml/kg/day to full feeds (150ml/kg); maximum 180ml/kg/day

Feeding of the stable newborn



Weight (Kg)	0.8-0.9 NG 3 hourly feed	0.9.-1.0 NG 3 hourly feed	1.1-1.2 NG 3 hourly feed	1.3-1.4 NG 3 hourly feed	1.4-1.5 NG 3 hourly feed	Total Daily Fluid/Milk Volume
Day 1	8	9	11	13	14	80ml/kg/day
Day 2	10	11	14	16	18	100ml/kg/day
Day 3	12	14	17	20	21	120ml/kg/day
Day 4	14	16	19	23	25	140mls/kg/day
Day 5	16	18	22	26	28	160mls/kg/day
Day 6	18	20	25	29	31	180ml/kg/day

3 hourly NGT EBM feed volumes for stable newborns with birth weight less than 1500grams NGT

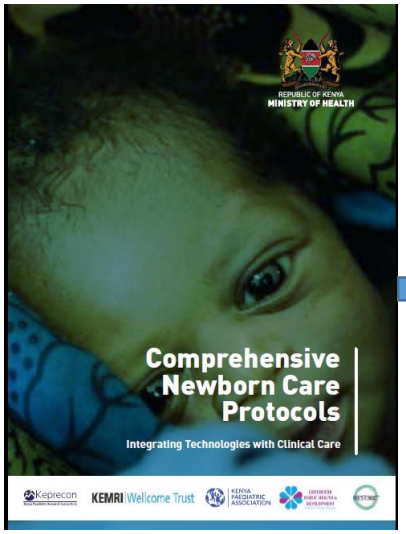
Age	O.6kg	0.7kg	0.8kg	0.9kg	1.0kg	1.1kg	1.2kg	1.3kg	1.4kg	1.5kg
D-1	6	7	8	9	10	11	12	13	14	15
D-2	8	9	10	11	13	14	15	16	18	19
D-3	9	11	12	14	15	17	18	20	21	23
D-4	11	12	14	16	18	20	21	23	25	26
D-5	12	14	16	18	20	22	24	26	28	30
D-6	14	16	18	20	23	25	27	29	32	34

Increasing EBM in unstable newborns

		<1500grams	≥1500grams
Day 1	10% D	**80m/kg/day + trophic feeds**	**60ml/kg/day + trophic feeds**
Day 2	EBM **30ml/kg/day**	30mls/kg/day (÷ 3hrs feeds)	
	IVF	**100ml/kg** –**30mls/kg** = IVF volume	**80ml/kg** –**30mls/kg** = IVF volume
Day 3	EBM **60ml/kg/day**	60mls/kg/day (÷ 3hrs feeds)	
	IVF	**120ml/kg** –**60mls/kg** = IVF volume	**100ml/kg** – **60mls/kg** = IVF volume

*Continue increasing by **20ml/kg** to max 180ml/kg . After trophic feeds on day 1 increase **EBM 30mls/kg/day**, rest parenteral*
Withhold oral feeds is abdominal obstruction or ileus is suspected

Feeding of the unstable newborn



3 hourly NGT EBM feeds and ONE hourly IVF for UNSTABLE NEWBORNS with birth weight less than 1500grams

	0.6-0.7kg		0.8-0.9kg		1.0-1.1kg		1.2-1.3kg		1.4-1.5kg	
	EBM 3hrly	IVF mls/hr	EBM 3hrly	IVF mls/hr	EBM 3hrly	IVF mls/hr	EBM 3hrly	IVF mls/hr	EBM 3hrly	IVF mls/hr
D-1	1	2	2	3	2	4	3	4	3	5
D-2	2	2	3	2	4	3	5	4	5	4
D-3	5	2	6	2	8	3	9	3	11	4
D-4	11	0	10	2	12	2	14	3	16	3
D-5	13	0	17	0	21	2	19	2	22	2
D-6	15	0	19	0	24	0	23	2	27	2
D-7	15	0	19	0	24	0	28	0	33	0

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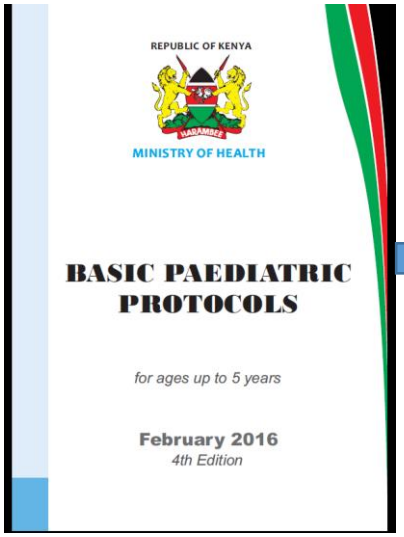


Weight (kg)	0.8 - 0.9		0.9 - 1.0		1.1 - 1.2		1.3 - 1.4		1.4 - 1.5	
	IVF mls per hr	NGT 3hrly feed	IVF mls per hr	NGT 3hrly feed	IVF mls per hr	NGT 3hrly feed	IVF mls per hr	NGT 3hrly feed	IVF mls per hr	NGT 3hrly feed
Day 1	3	0	3	0	4	0	3	0	4	0
Day 2	2	5	3	5	3	5	4	5	5	5
Day 3	1	10	2	10	2	10	3	10	4	10
Day 4	0	15	1	15	1	15	3	15	4	15
Day 5	0	16	0	18	0	22	2	26	3	28
Day 6	0	18	0	20	0	25	1	29	3	30
Day 7+	0	21	0	22	0	27	0	32	0	35

Gastric residuals monitoring in preterms

Gastric residuals in preterms

- **Gastric residual-** volume of milk + GI secretions remaining in the stomach after a certain time interval.[1]

- Increased residuals common in preterms due to:[1,2]

Intrinsic factors

- Immaturity of the gut
  - Delayed gastric emptying
  - Slower intestinal transit
  - Inadequate secretion of gut hormones and enzymes
  - Possible duodeno-gastric reflux

Extrinsic factors

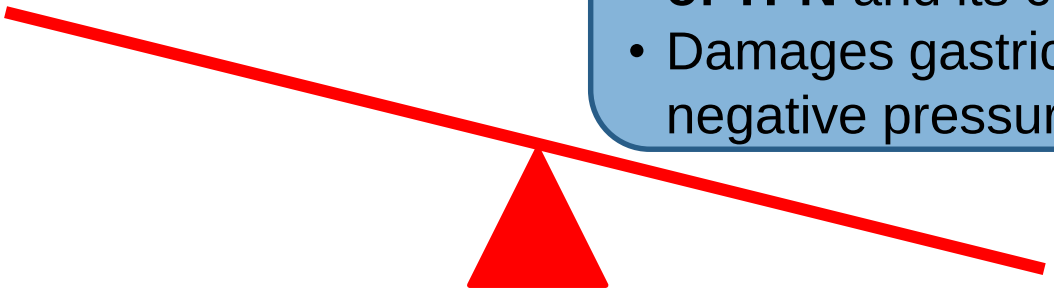
- Formula feeds
- Certain drugs e.g. opioids
- Body position
- Illness

1. *Abiramalatha T, et. al. Cochrane Database of Systematic Reviews 2019, Issue 7. Art. No.: CD012937*
2. *Li YF, et. al. Pediatrics and Neonatology 2014;55(5):335-40*

Gastric residuals monitoring effects

NO EFFECTS in incidence of:
- NEC
- Invasive infection

Disadvantages:
- **Delays time to establish full enteral feeds**
- **Delays time to regain birth weight**
- Significant **increase in the episodes of feed interruption**
- Significant **increase in the number of TPN** and its complications [1]
- Damages gastric mucosa by negative pressure [2]



1. *Kaur A, et. al. Journal of Paediatric Gastroenterology and Nutrition 2015; 60(2):259-63..*
2. *Li YF, et. al. Pediatrics and Neonatology 2014;55(5):335-40*

Recommendations for gastric residual monitoring in preterms

- Do not check for gastric residuals routinely
- Only monitor if any signs suggestive of NEC or feeding intolerance
- Isolated green or yellow residuals are unimportant. Vomiting bile may indicate an intestinal obstruction or ileus.
- Withhold feeds in case of hemorrhagic residuals, as hemorrhagic residuals are significant.

Dutta S, et al. Guidelines for feeding very low birth weight infants. Nutrients. 2015 Jan 8;7(1):423-42

Breastfeeding in the Covid19 era

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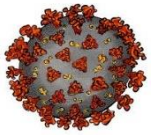
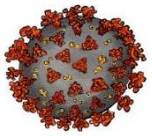
Emergency Triage Assessement and Treatment plus admission

What is COVID-19?



Coronavirus disease 2019 (COVID-19) is a respiratory tract infection caused by a newly emergent coronavirus , that was first recognized in Wuhan, China, in December 2019



The virus that causes COVID-19 is designated as **severe acute respiratory syndrome corona virus 2 (SARS-CoV-2)**

March 11, 2020 , WHO characterized COVID-19 as a pandemic

Modes of transmission & stopping spread of SARs-Cov2

1. **Droplet transmission:**
   - Large nuclei(>5µm) spread within 1m by coughing, sneezing or talking to an infected person. Settles by gravity

   → Wearing a mask, Maintaining distance

2. **Direct contact exposure:**
   - Contaminated hands directly touches mucous membranes of a susceptible person

   → Avoid shaking hands, Maintain hand hygiene, Cough etiquette, Wear a mask

3. **Fomites:**
   - Object/surfaces likely to carry the microbes i.e. stethoscope or thermometer

   → Regular disinfection of surfaces and objects e.g. stethoscopes and thermometers; Handwashing; Use of gun thermometers to maintain distance

4. **Airborne transmission:**
   - microbes within droplet nuclei (< 5µm)/ dust particles aerosolized by procedures (alveoli)

   → Wearing N95 masks and avoid procedures if they don't have to be done

Infection can be spread by symptomatic or asymptomatic patients.- when unwell should be isolated to break the cycle of spread. HCWs should take IPC precautions when attending to all patients

Source: Modes of transmission of virus causing COVID-19 : implications for IPC precaution recommendations. 2020;(March):19–21;

Identifying a mother with suspected covid 19

Suspected case

- Acute respiratory illness and/or fever >38^{0}C **AND** no known aetiologies that fully explain the presentation **AND** a history of travel to a community with COVID-19 transmission at least **14 days** prior to symptom onset;
- OR
- **Any** acute respiratory illness **AND** having been in contact with a confirmed or probable COVID-19 case in the last 14 days prior to symptom onset; OR
- Severe acute respiratory illness **AND** requiring hospitalization **AND** in the absence of an alternative diagnosis that fully explains the clinical presentation

Confirmed case

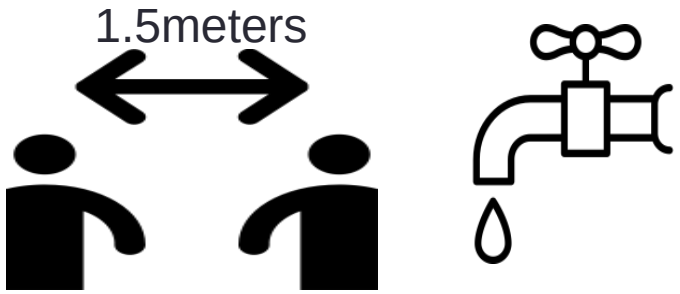
- A person with **laboratory** confirmation of COVID-19 infection, **irrespective** of clinical signs and symptoms

Probable case

- A probable case is one with pending results

Lay out in postnatal, NBU, KMC room & expressing breastmilk room

All mothers to keep 1.5 meter apart in all places.
All wash hands frequently & wear masks;
Instruct all mothers on cough etiquette and hand hygiene. Self temp monitoring twice a day



Potentially Contaminated zone
Suspected COVID 19

Confirmed COVID 19
Postnatal, KMC,NBU rooms etc

Suspected COVID-19
Postnatal, KMC, NBU rooms etc

Clean zone
No fever/no cough/no contact

Postnatal, KMC, NBU rooms etc

Beds 1.5 meters apart, cottons masks.

saving children's lives
ETAT+
Emergency Triage Assessment and Treatment plus admission

Breastfeeding in COVID19

Recommendations

1. Support mother to breastfeed
2. Practice skin to skin contact
3. Rooming- in

Actions

1. Respiratory hygiene and wear a mask
2. Wash hand before and after handling the baby
3. Routine cleaning and disinfection of surfaces.

Spread of infection through breastmilk is unknown

http://www.emro.who.int/nutrition/nutrition-infocus/breastfeeding-advice-during-covid-19-outbreak.html

Feeding options in COVID19

Best option for the well mother breastfeeding

Feeding option for the unwell mother

- Preferable- Expressed breastmilk
- Others
  - Donor breast milk.
  - Relactation.
  - Wet nursing.

Health care workers and facilities **should not** promote

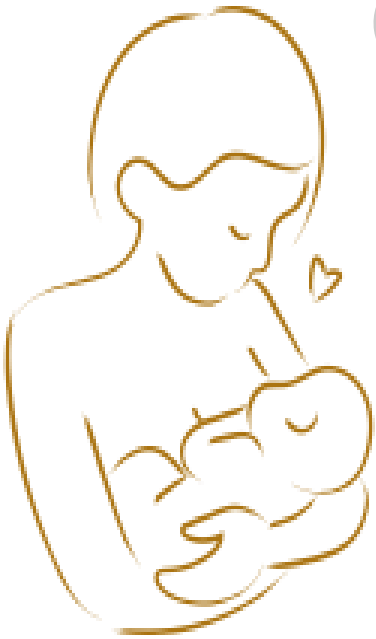
- Breastmilk substitutes
- Feeding bottles
- Pacifiers and teats

http://www.emro.who.int/nutrition/nutrition-infocus/breastfeeding-advice-during-covid-19-outbreak.html

Breastfeeding and HIV

Breastfeeding and HIV

WHO 2016 recommendation



1. Breastfeed for at least 12 months and may continue breastfeeding for up to 24 months or longer while being fully supported for ART adherence

2. Exclusive breastfeeding is recommended, But practicing mixed feeding is not a reason to stop breastfeeding in the presence of ARV drugs.

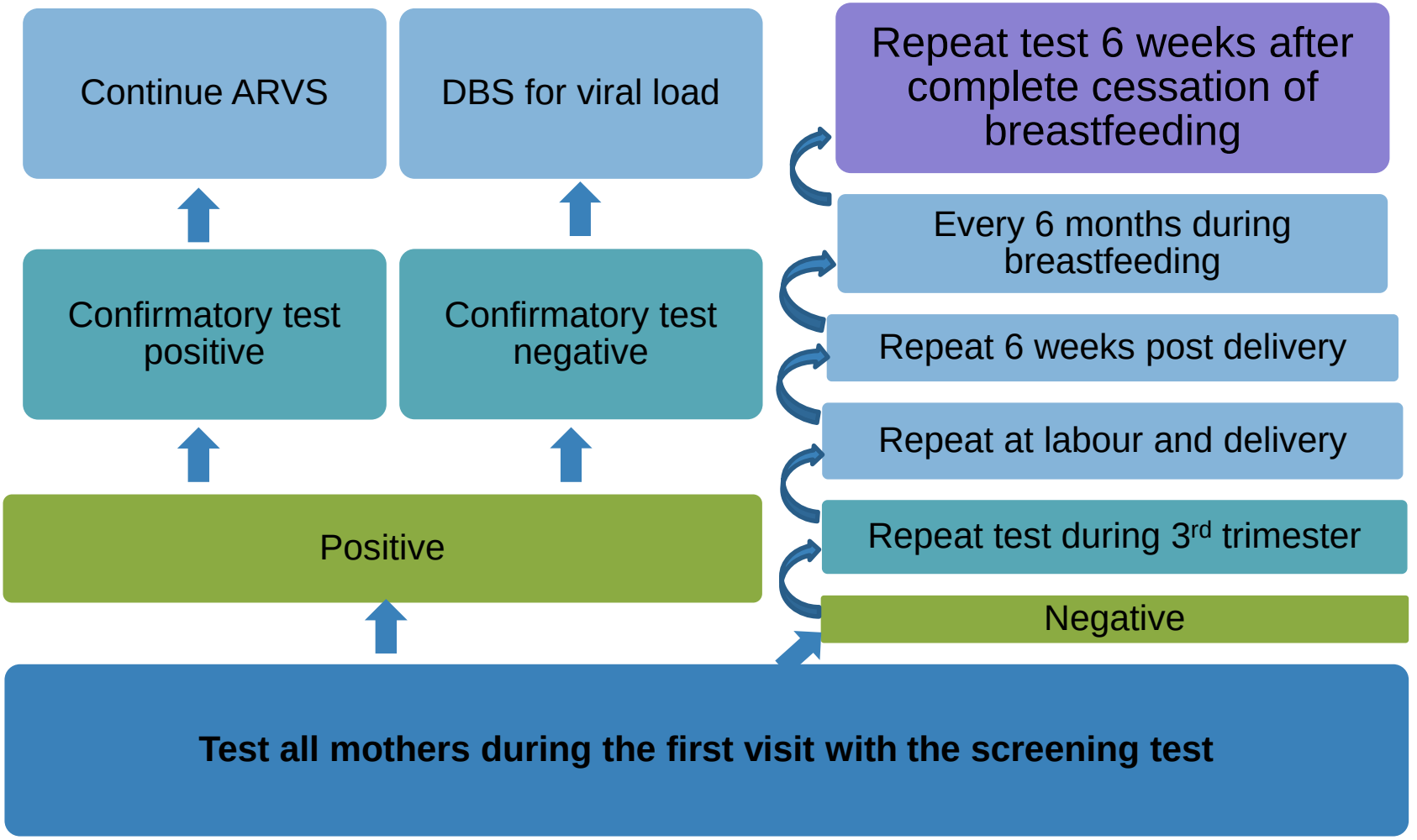
3. Shorter durations of breastfeeding of less than 12 months are better than never initiating breastfeeding at all.

WHO Updates on HIV and infant feeding Guideline 2016

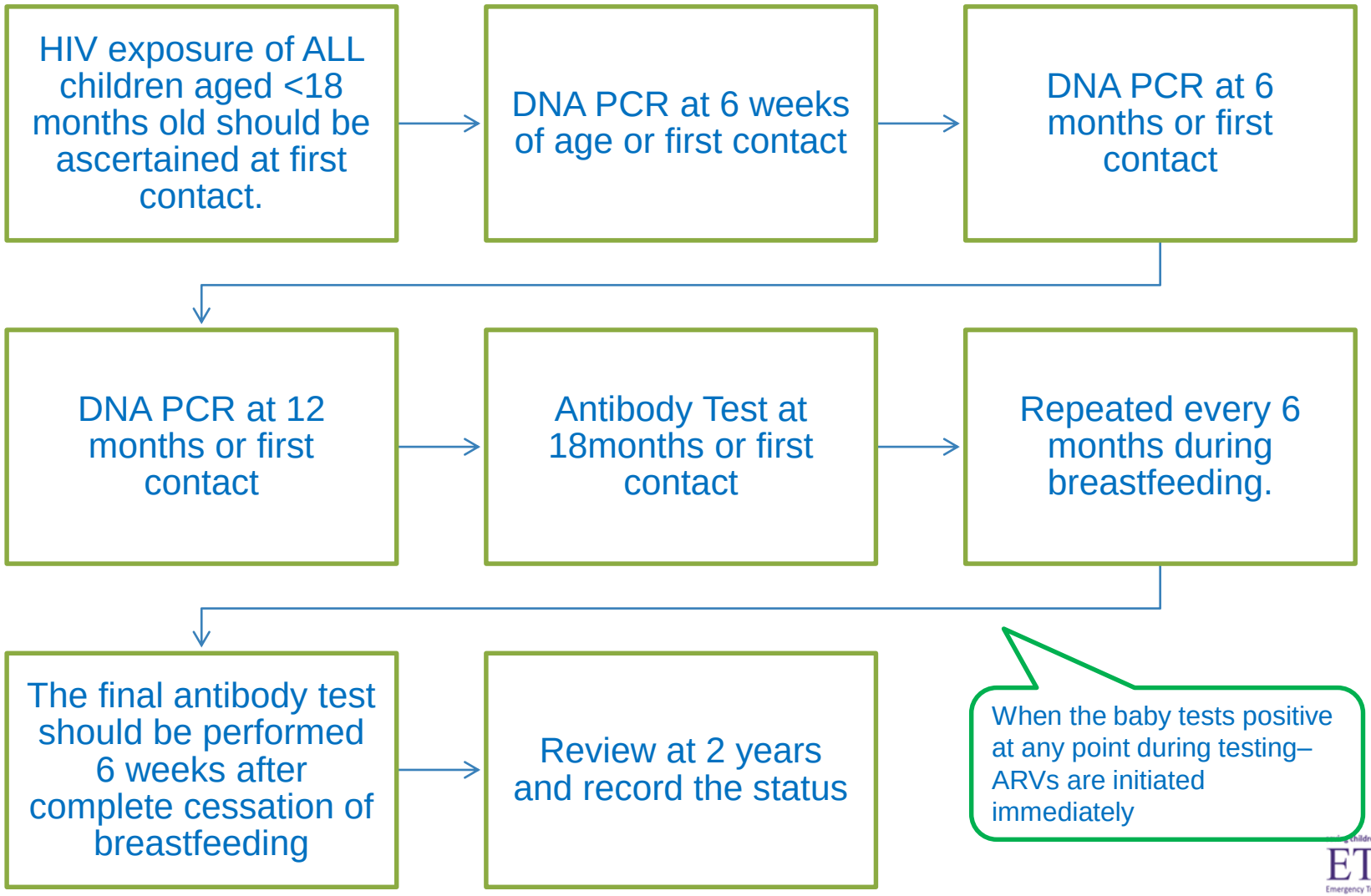
HIV and breastfeeding

- Mother to make informed decision
- Start on the ARVs early (before 3 months gestation)
- Promote ARV adherence (mothers lifelong treatment and baby prophylaxis).
- Baby prophylaxis – Nevirapine and Zidovudine for 6 weeks then Nevirapine to be continued until six weeks after stopping breastfeeding.
- Test infant HIV (DNA) every 6 months until complete cessation of breastfeeding
- Exclusive breastfeeding for 6 months and CT BF unto 2 years and beyond.
- Transmission of HIV increases if mom stops ARVs abruptly

MOH guidelines on testing of Pregnant women



MOH guidelines- for HIV Exposed infant who is breastfed



Summary

- Breastfeeding is indispensable for the growth and development of the baby
- Mother should be taught and supported to acquire appropriate feeding practices
- HCW should teach the mothers on expression of breastmilk and cup feeding
- Delaying trophic feeds is harmful to the newborn
- Rapid increase in feeds is recommended on babies not of full enteral feeds on day 1
- Do not monitor gastric residual volume
- Exclusive breastfeeding should be encouraged in mothers with COVID-19 and HIV positive mothers and the necessary precaution should be taken.