### 1. TRIAGE: CHECK FOR SIGNS AND SYMPTOMS FOR REFERRAL TO INPATIENT CARE

<table>
<thead>
<tr>
<th>ASSESS</th>
<th>CLASSIFY</th>
<th>ACT (MANAGE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infants CHECK for General Danger Signs</td>
<td>INFANT/MOTHER: NUTRITIONALLY VULNERABLE WITH MEDICAL COMPLICATIONS - HIGH NUTRITIONAL RISK OR VERE SEVERE DISEASE</td>
<td>URGENT referral to Inpatient Care</td>
</tr>
<tr>
<td><strong>Ask / Listen / Look / Feel</strong></td>
<td><strong>If any of the following are present for Infant: General Danger Signs</strong></td>
<td><strong>Pre-referral actions: Infant</strong></td>
</tr>
<tr>
<td>• Ask: Is the infant able to drink or breastfeed?</td>
<td>☐ Unable to feed</td>
<td>☐ Provide any appropriate pre-referral treatment</td>
</tr>
<tr>
<td>• Ask: Does the infant vomit everything?</td>
<td>☐ Vomits everything</td>
<td>☐ Show the mother how to keep the infant warm on the way to the hospital or clinic</td>
</tr>
<tr>
<td>• Ask: Has the infant had convulsions?</td>
<td>☐ Had fit (convulsions)</td>
<td>• Provide skin-to-skin contact</td>
</tr>
<tr>
<td>• Look: Is the infant convulsing now?</td>
<td>☐ Movement only when stimulated (lethargic)</td>
<td>OR • Keep the infant clothed or covered as much as possible all of the time. Dress the young infant with extra clothing including hat, gloves, socks and wrap the infant in a soft dry cloth and cover with a blanket</td>
</tr>
<tr>
<td>• Look: Is the infant lethargic or unconscious?</td>
<td>☐ No movement (unconscious)</td>
<td>If child is very hot, ask mother to remove outer clothing and leave infant in underwear</td>
</tr>
<tr>
<td>• Look and count the breaths in one minute.</td>
<td>Difficulty breathing</td>
<td>• For breastfed infant, encourage breastfeeding before transfer and on the way if infant has an appetite</td>
</tr>
<tr>
<td>• Look: Does infant have lower chest wall in-drawing?</td>
<td>☐ Fast breathing</td>
<td>• For non-breastfed infant, ensure the mother has appropriate feeding supplies and encourage to feed before transfer and on the way if the infant has appetite</td>
</tr>
<tr>
<td>• Ask: Does the infant have diarrhoea?</td>
<td>Diarrhoea Has diarrhoea</td>
<td></td>
</tr>
<tr>
<td>• Look: Does the infant have sunken eyes?</td>
<td>Sunken eyes</td>
<td></td>
</tr>
<tr>
<td>• Ask: Are infant's eyes recently sunken or look worse than yesterday?</td>
<td>Skin pinch goes back very slowly (&gt;2 sec.)</td>
<td></td>
</tr>
<tr>
<td>• Pinch the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Feel: Does the infant have a fever (hot)?</td>
<td>Fever Feels hot: ≥37.5°C</td>
<td></td>
</tr>
<tr>
<td>• Does the infant have low body temperature (feels cool)?</td>
<td>Feels cold: &lt;35.5°C</td>
<td></td>
</tr>
<tr>
<td>• Measure temperature under the armpit if you have a thermometer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infant: Check for jaundice</td>
<td>Jaundice</td>
<td></td>
</tr>
<tr>
<td>• Look for jaundice. Does the infant have yellow eyes or skin?</td>
<td>☐ Age &lt;24 hours: any jaundice</td>
<td></td>
</tr>
<tr>
<td>• Look at the young infant’s palms and soles. Are they yellow</td>
<td>☐ Age &gt;24 hours: jaundice hands &amp; feet</td>
<td></td>
</tr>
</tbody>
</table>

**Pre-referral actions: Infant**
- Provide any appropriate pre-referral treatment
- Show the mother how to keep the infant warm on the way to the hospital or clinic
- Provide skin-to-skin contact
- Keep the infant clothed or covered as much as possible all of the time. Dress the young infant with extra clothing including hat, gloves, socks and wrap the infant in a soft dry cloth and cover with a blanket
- If child is very hot, ask mother to remove outer clothing and leave infant in underwear
- For breastfed infant, encourage breastfeeding before transfer and on the way if infant has an appetite
- For non-breastfed infant, ensure the mother has appropriate feeding supplies and encourage to feed before transfer and on the way if the infant has appetite

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1. See videos as part of newborn and small baby series (Global Health Media) that include: 'Danger Signs for Health Workers' and 'Fast Breathing as a Single Sign of Illness', www.globalhealthmedia.org/videos/. Also see short videos (Medical Aid Films) at www.medicalaidfilms.org. Note that in acutely malnourished infants, usual clinical signs may be absent or reduced. It is essential to consider the full clinical picture and history in assessment.
2. Lower chest wall in-drawing is when the lower chest wall goes in when the child breathes in; if only the soft tissue between the ribs or above the clavicle goes in when a child breathes, this is not lower chest in drawing (it is recession). See 'Danger Signs for Health Workers' for video (footnote 1).
3. Grunting is a short, hoarse sound at the end of expiration (when the child breathes out) and is a sign of moderate to severe respiratory distress in young infants and children with lower airway disease, such as pneumonia, lung collapse (atelectasis) or fluid in the lungs (pulmonary oedema). See 'Danger Signs for Health Workers' for video (footnote 1).
4. Diarrhoea: for infants older than 1 month, 3 or more abnormally loose or watery stools per 24 hours [Note: breastfed infants up to 1 month of age can have a stool after every breastfeed].
5. IMCI for young infant says: "If you do not have a thermometer, feel the infant's abdomen or armpit and determine if it feels hot or unusually cold".
### Infant CHECK for General Danger Signs

- **Infant:** Check for severe pallor/anaemia
  - Look at infant’s hands. Are the palms very pale/white?

- **Mother:** Check at for pallor/anaemia
  - Test for Hb via Hemocue or similar
  - Look at mother’s hands: Are her palms very pale/white?
  - Look at eyes: Are inside of eyelids pale?

- **Infant:** Check for complications that make feeding difficult
  (see 2nd Column)

### Infant/Mother: Nutritionally Vulnerable with Medical Complications - High Nutritional Risk or Very Severe Disease

- **Severe pallor/anaemia**
  - Very pale or white palms

### ACT (MANAGE)

- **URGENT** referral to Inpatient Care

### Infant: Anthropometric/Nutritional Assessment

- **Look** for pitting oedema of both feet
- **Measure** weight and length and determine weight-for-age (WFA)\(^7\) and weight-for-length (WFL) where calculable
- **Record** Mid Upper Arm Circumference (MUAC) for all infants (to help build evidence)\(^8\)
- **Ask & Listen:** Have you noticed your infant losing weight? For how long?

### Infant:

- **WFA:**
  - **< -2** OR
  - **< -2 WFL**
- **MUAC:** ______ mm (record to help build evidence)

### Infant: Check for complications that make feeding difficult

- **If Infant has any of the following that make feeding difficult**
  - Cleft lip or palate (feel inside mouth to check palate)
  - Tongue tie
  - Abnormal tone or posture
  - Excessively open/clenched jaw
  - Unable to support head or poor trunk control
  - When held, infant’s arms and legs fall to the sides
  - Infant’s body stiff, hard to move
  - Coughing and eye tearing while feeding (signs of unsafe swallowing)

- **Specialist** referral for more detailed assessment and treatment of any structural or disability problem that should include special feeding support

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\(^6\) WHO cut-offs vary when pregnant and not pregnant and pregnancy defined until 6 weeks post-partum.

\(^7\) Recent evidence has shown that WFA can help identify underweight infants who are also at higher risk to mortality. WFA is therefore used as a criterion for enrolment of nutritionally vulnerable infants under 6 months. A cut-off of WFA < -2 is used to ensure consistency with WFL cut-offs.

\(^8\) There is recent growing evidence on the use of MUAC to identify acute malnutrition and nutrition vulnerability in infants under 6 months.

However, a nutrition classification cutoff has not yet been established. Countries and programmes are encouraged to collect MUAC data for infants under 6 months to help build the evidence base for cutoffs and case management. Nutritional oedema is rare in infants and therefore infants with oedema should always be admitted to in-patient care to investigate possible underlying medical cause. (feet, legs, whole body). Grade + Mild: Both feet/ankles, Grade ++ Moderate: Both feet, plus lower legs, hands or lower arms; Grade +++ Severe: Generalised bilateral pitting oedema, including both feet, legs, arms and face.

In many settings, it can be difficult for a health worker or mother to detect acute weight loss in an infant. Where reported or detected, weight loss in infants should be interpreted alongside the general clinical condition; “lost more than 10% of previous weight.”
**ASSESS**

**Infant CHECK for General Danger Signs**

**CLASSIFY**

**INFANT/MOTHER: NUTRITIONALLY VULNERABLE WITH MEDICAL COMPLICATIONS - HIGH NUTRITIONAL RISK OR VERY SEVERE DISEASE**

**ACT (MANAGE)**

**URGENT referral to Inpatient Care**

Mother: Anthropometric/ Nutritional Assessment
- Look for pitting oedema of both feet (if mother not pregnant)
- Measure MUAC (always)

Mother: MUAC: _<190 mm_
- _MUAC: ______ mm (record to help build evidence)_
- OR
- Bilateral pitting oedema (if mother not pregnant)

Mother: Maternal Mental Health

**MOTHER**

Observe the mother's responses and behaviours
- **Listen & Look:** Does it appear that mother is out of touch with reality or what is happening in the assessment (e.g. not responding appropriately during the assessment)?
- **Listen & Look:** Does the infant appear to be at risk from the mother’s behaviour? (for example: mother shows no concern for infant, or wilful neglect of infant, such as prolonged period of no eye contact or no physical contact with infant)

There are many daily tasks a mother does to care for her infant and family (for example: washing, cooking).
- **Ask & Listen:** What are some of the most important things you do for your infant and family?
- **Ask & Listen:** Do you ever find it difficult to do all these tasks? If Yes: Why is that?

Sometimes a mother finds it difficult to do daily tasks because she is feels sad or worried.
- **Ask & Listen:** In the last few weeks, have you been feeling: Sad? If Yes (listen for): little/some/much/most of the time? Worried? If Yes (listen for): little/some/much/most of the time?
- **Ask & Listen:** Are there times you experience so much pain that it interferes with your ability to carry out daily tasks?
- **Ask & Listen:** If Yes (listen for): Does this happen rarely/some/often/most of the time?

If mother answers yes to either of questions above, then ask:
- **Ask & Listen:** What are the problems that you are feeling sad or worried about?

Sometimes when a person feels sad or worried she may have thoughts of harming herself or her infant.
- **Ask & Listen:** Do you have any thoughts like that?

Sometimes a person feels very sad or worried because her husband/partner (or someone else in the family) is hitting or beating her.
- **Ask & Listen:** Is that happening to you?

Any of the following:
- Mother appears to be out of touch with reality or with what is happening in the assessment
- Infant appears to be at risk from the mother’s behaviour.

**[Mother may have a severe mental, neurological or substance use disorder]**
- Mother finds it difficult to carry out daily tasks necessary to care for her infant
- Mother feels body pain most of time
- Mother feels very sad or worried much of time

List problems mother is feeling sad or worried about:

**[Mother is severely anxious, depressed, traumatised, or otherwise in emotional crisis]**
- Mother has thoughts of harming herself or infant
- Mother expresses fear of physical harm to herself or infant from her partner or another person
- Mother or infant has experienced physical harm from her partner or another person

[**Mother and/or infant are at risk of harm from mother herself or other individual**]

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11 Questions are sensitive and context specific. Work with staff to decide together what works best in your particular situation.
## 2. FEEDING ASSESSMENT

<table>
<thead>
<tr>
<th>ASSESS</th>
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</thead>
<tbody>
<tr>
<td>Breastfed Infant and Mother</td>
<td>Moderate Feeding Problem: C-MAMI criteria</td>
<td>C-MAMI Enrolment (Outpatient): Infant-Mother Pair</td>
<td>No Feeding Problem: C-MAMI criteria</td>
<td>Home Care</td>
</tr>
<tr>
<td><strong>Breastfed Infant</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• <strong>Look:</strong> Is the infant well attached?</td>
<td>Any of the following</td>
<td>Refer to Breastfeeding Counselling and Support Actions</td>
<td>Well Attached: all the following</td>
<td>Praise, support, reassure</td>
</tr>
<tr>
<td>- Mouth wide open</td>
<td></td>
<td>Attachment: Section A: 1</td>
<td>Mouth wide open</td>
<td>General advice/counselling on:</td>
</tr>
<tr>
<td>- Lower lip turned outwards</td>
<td></td>
<td>Effectively suckling: Section A: 2</td>
<td>Lower lip turned outwards</td>
<td>- general age appropriate feeding</td>
</tr>
<tr>
<td>- Chin touching breast</td>
<td></td>
<td>Frequency of breastfeeds:</td>
<td>Chin touching breast</td>
<td>and nutrition recommendations</td>
</tr>
<tr>
<td>- More areola above than below nipple</td>
<td></td>
<td>Section A3</td>
<td>More areola above than below nipple</td>
<td>- routine healthcare</td>
</tr>
<tr>
<td>• <strong>Look:</strong> Is the infant suckling effectively?</td>
<td>Slow deep sucks</td>
<td>Exclusive breastfeeding:</td>
<td>Suckling well: all the following</td>
<td>services e.g. vaccinations, growth</td>
</tr>
<tr>
<td>• Slow deep sucks</td>
<td>Pausing</td>
<td>Section A: 4</td>
<td>Slow deep sucks</td>
<td>monitoring</td>
</tr>
<tr>
<td>• Audible swallowing</td>
<td></td>
<td>Oral thrush (candida):</td>
<td>Pausing</td>
<td>Advise to return if new</td>
</tr>
<tr>
<td>• Ask &amp; Listen: Does the infant receives</td>
<td>Check for oral thrush (candida)</td>
<td>Section A: 11</td>
<td>Audible swallowing</td>
<td>problem develops</td>
</tr>
<tr>
<td>plain water, other liquids or foods?</td>
<td></td>
<td>AND</td>
<td>≥8 in 24 hours</td>
<td></td>
</tr>
<tr>
<td>• Ask &amp; Listen: Does the infant refuse to breastfeed?</td>
<td></td>
<td>AND</td>
<td>No plain water/ liquids/foods</td>
<td></td>
</tr>
<tr>
<td>• Look for thrush in infant’s mouth</td>
<td></td>
<td>AND</td>
<td>No thrush in infant’s mouth</td>
<td></td>
</tr>
</tbody>
</table>

| Mother | | | | |
| • **Listen:** Find out if the mother thinks she hasn’t enough breast milk | Mother: either of the following | Mother: Perception of not having enough breast milk: Section A: 5 | Mother: Confident about infant condition, and breastfeeding | Praise, support, reassure |
| - Lack of confidence about feeding | | Lack of confidence about feeding: | Reports no breastfeeding problem and no concern | General advice/counselling on: |
| OR | | Section A: 6 | | - general age appropriate feeding |
| Breast Condition: identify any of the following | Mother: | Breast Condition: | Breast Condition: Engorgement: Section A: 7 | and nutrition |
| • Ask & Look: Engorgement | either of the following | any of the following | Sore & cracked nipples: | recommendations |
| • Ask & Look: Sore & cracked nipples | | | Section A: 8 | - routine healthcare |
| • Ask & Look: Plugged ducts | | | Plugged ducts: Section A: 9 | services e.g. |
| • Ask & Look: Mastitis | | | Mastitis: Section A: 9 | vaccinations, growth |
| • Ask & Look: Flat, inverted, large or long nipples | | | Flat, inverted, large or long nipples: Section A: 10 | monitoring |
| • Ask & Look: Itching of nipples or breasts (thrush) | | | Thrush: Section A: 12 | Advise to return if new |
| | | | | problem develops |

Continued on next page.
## Other concerns: any of the following
- **Ask & Listen**: Do you think your infant was born too early? or too small?
- **Ask & Listen**: How do you feel about your infant’s weight gain/growth?
- **Ask & Listen**: Are you working away from infant or separated from him/her?
- **Ask & Listen**: Do you have concerns about your own diet?
- **Ask & Listen**: Other (dealing with different feeding practices of mother-in-law, father, family)?
- **Ask & Listen**: Any other problem or concern?

### In non-breastfed infant: any of the following
- **If appropriate note why the mother stopped breastfeeding**
- **Mother present and interested in relactating**
- **Mother absent but caregiver interested in relactating**
- **Inappropriate BMS being used**
- **Consumes less than 500ml of BMS per 24 hours**
- **Refusing feeds**
- **Receives other drinks or foods in addition to BMS**
- **Feeding bottle used**
- **Does not practice good hygiene in feed preparation**
- **Note problem/concern:**

### In non-breastfed infant
- **Non-breastfeeding counselling and support actions**: Section C: 1-4
- **Interest in relactating**: Section C: 1-4
- **Supplementary suckling support**: Section B
- **Preparing infant formula**: Section C: 3-4

### Non-breastfed Infant-Mother/Caregiver
- **Ask & Listen**: Is mother the main caregiver for infant?
- **Ask & Listen**: Did mother ever breastfed? When did she stop and why?
- **Ask & Listen**: Is mother interested in relactating?
- **Ask & Listen**: Is caregiver interested in wet nursing?
- **Ask & Listen**: What is the type/source of breast milk substitute (BMS) used?
- **Ask & Listen**: How do you prepare the BMS used?
- **Ask & Listen**: How much BMS is consumed per 24 hours?
- **Ask & Listen**: Is infant refusing feeds?
- **Ask & Listen**: Does infant receive other drinks or foods in addition to BMS?
- **Ask & Listen**: What feeding utensils does infant use?
- **Ask & Listen**: Any problems or concerns?
- **Ask & Listen**: Do you have the fuel/equipment available to clean and sterilize?
Underlying clinical problems or issues that may affect feeding
- Is this infant a twin?
- What is mother’s age?
- Has the mother or prospective wet nurse or infant had an HIV test?
- If tested HIV positive and breastfeeding: is the mother and infant on anti-retroviral treatment (ART)?

Mother or prospective wet nurse: any of the following
- Tested HIV positive
- On ART

Note problem/concern:

Infant/Mother

**ASSESS**

Infant
- Obtain infant age (in completed months). Measure weight and length and determine weight-for-age z-score (WFA)\(^{12}\) and weight-for-length z-score (WFL) where calculable.
- NOTE: clinical assessment for visible wasting is not a reliable substitute for anthropometry and will result in cases being missed. It should only be done where length is <45cm and WFL cannot be calculated.
- Record Mid Upper Arm Circumference (MUAC) for all infants (to help build evidence)\(^{13}\)

Infant: any of the following
- Twin birth
- Adolescent mother (<19 years)
- Tested HIV positive
- On ART

Infant
- Twin birth: Section A: 19
- Adolescent mother (<19 years): Section A: 20
- Tested HIV positive: investigate and treat as per national / local guidelines: Section A: 21

Mother/Wet-nurse
- Tested HIV positive: investigate and treat as per national/local guidelines
- Ensure mother/wet-nurse is referred for or receiving appropriate treatment (antiretroviral drugs for HIV)
- Emphasise importance of adherence to ART for mother/wet-nurse’s health and to reduce HIV transmission risk to infant

**CLASSIFY**

Infant: nutritionally vulnerable infants without medical complications (moderate nutritional risk) or mother: moderate nutritional risk

**ACT (MANAGE)**

C-MAMI outpatient enrolment: Infant-Mother Pair

Infant gain weight

**CLASSIFY**

Infant and mother low nutritional risk

No C-MAMI enrolment for Infant-Mother Pair

**ACT (MANAGE)**

Praise, support, reassure
General advice/counselling on:
- general age appropriate feeding
- nutrition recommendations
- routine healthcare services e.g. vaccinations, growth monitoring
Advise to return if new problem develops

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12. Recent evidence has shown that WFA can help identify underweight infants who are also at higher risk to mortality. WFA is therefore used as a criterion for enrolment of nutritionally vulnerable infants under 6 months.

13. There is recent growing evidence on the use of MUAC to identify acute malnutrition and nutrition vulnerability in infants under 6 months. However, a nutrition classification cutoff has not yet been established. Countries and programmes are encouraged to collect MUAC data for infants under 6 months to help build the evidence base for cutoffs and case management.
### 4. MATERNAL MENTAL HEALTH ASSESSMENT

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<tr>
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<th>ACT (MANAGE)</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Mother</strong></td>
<td><strong>MOTHER: MODERATE MATERNAL MENTAL DEPRESSION/ANXIETY/DISTRESS</strong></td>
<td></td>
<td><strong>MOTHER: NO MATERNAL MENTAL DEPRESSION/ANXIETY/DISTRESS</strong></td>
<td>No C-MAMI enrolment for Infant-Mother Pair</td>
</tr>
<tr>
<td>On some or most days in the last 2 weeks:</td>
<td></td>
<td></td>
<td></td>
<td>Praise, support, reassure</td>
</tr>
<tr>
<td>- <strong>Ask &amp; Listen:</strong> Have you felt unable to stop worrying or thinking too much?</td>
<td></td>
<td></td>
<td></td>
<td>General advice / counselling on:</td>
</tr>
<tr>
<td>- <strong>Ask &amp; Listen:</strong> Have you been sad or worried?</td>
<td></td>
<td></td>
<td></td>
<td>- age- and status-appropriate feeding and nutrition recommendations</td>
</tr>
<tr>
<td></td>
<td>If mother answers yes to 1-2 of the questions, then enrol in C-MAMI</td>
<td>Ask mothers about their concerns</td>
<td></td>
<td>- routine healthcare services</td>
</tr>
<tr>
<td></td>
<td>- Mother felt unable to stop worrying or thinking too much</td>
<td>Listen to mothers and help them feel calm</td>
<td></td>
<td>- Provide follow-up in 1 week</td>
</tr>
<tr>
<td></td>
<td>- Mother has been sad or worried (Mother has symptoms of anxiety, depression, or stress that impacts daily functions)</td>
<td>Help mothers to find solutions and link to resources to address basic needs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>