Trigger: Any concern for NEC that would normally make us hold feeds and begin a work up (AXR, WBC/CRP) in patients < 6months of age

* + Bloody stools, change in Abdominal Circumference > 10%, persistent emesis etc

|  | 0 points for each | 1 point for each positive | 2 points for each positive | 3 points for each positive | 4 points for each positive |
| --- | --- | --- | --- | --- | --- |
| Prodrome | No agitation or temperature instability | agitation/temperature instability/mild apnea/bradycardia/desats | significant apnea/bradycardia/desats  True Fever or Hypothermia |  |  |
| Vasopressor Requirement | No vasopressor | On a vasopressor with no change in dosing |  | new or increased vasopressor requirement |  |
| Abdominal circumference/physical exam | increased <5% or benign (no point) |  | increased > 10% or distention/obvious discomfort on exam | taut/mild cellulitis | concern for abdominal hypertension/cellulitis/palpable mass |
| Feeding intolerance | Tolerating feeds with no bloody stools or emesis | Increased emesis from baseline/stool occult blood x1 | grossly bloody stool | Persistent bloody stools |  |
| Abdominal XR findings per radiology | No acute findings of concern | Multiple dilated bowel loops or gasless abdomen | Possible pneumatosis | portal venous gas or definitive pneumatosis | free air |
| US findings if performed | Normal US |  | ascites | abscess | bowel wall edema/hypoperfusion |
| Acidosis | pH > 7.3 AND lactate <2 | pH <7.3 but >7.25 OR lactate >2 but <2.5 | pH <7.25 but >7.2 OR lactate >2.5 but <5 | pH <7.2 OR lactate >5 |  |
| ECMO with normal anticoagulation levels |  |  | Add 2 |  |  |
| platelet count | Stable with no change |  | decreased by 50% or <100 within the last 72 hours | decreased by 75% or <50 within the last 72 hours |  |
| Inflammatory Markers\* | WBC < 15 and/or CRP < 2 |  | WBC increased > 15 and/or CRP > 2 |  |  |
| Renal NIRS | Unchanged | decreased 10-19% | decreased 20-49% | decreased >50% |  |
| STAT score | STAT 1-2 |  | STAT 3-4 | STAT 5 or PDA stent |  |

Rescore when NPO time should be completed and then every 24 hours if not able to initiate feeds due to score

\*For subsequent days scores only score inflammatory markers if they continue to rise as + 2 points

| Treatment protocol | NEC watch | Resume unfortified feeds when score < 4 or patient is clinically improved, and score will not decrease < 4 due to other reasons or after recommended NPO/antibiotic timeline | Antibiotic choice | Recommended Imaging Schedule |
| --- | --- | --- | --- | --- |
| Feeding intolerance (score remains less than <4) | 36 hours | 50% of the most recently tolerated rate, increasing according to protocol | none | daily AXR during treatment, weekly AXR during feed advance |
| Possible NEC/Mild  (score 4-8) | treatment 48 hours | 50% of the most recently tolerated rate and if tolerated for 24 hours, increase according to protocol | Abx per empiric order set for NEC  Send Blood culture | daily AXR during treatment, q3d AXR during first week of feed advance |
| Mild/Moderate  (score 9-12) | Minimum of 48 hours and each additional day determined by daily patient score/clinical judgement  \*If true pneumatosis identified on AXR🡪 minimum 7 days | 20ml/kg/day and advance according to existing protocol. | Abx per empiric order set for NEC  Send Blood culture | BID AXR for first 48 hours, US if clinical decline/ increasing score |
| Moderate  (score 13-17) | Minimum 7 days + clinical resolution of sx | Continuous rate of 20ml/kg/day and if tolerated for 24 hours, advance by 1ml/hr q24hrs. If tolerating for 48 hours may transition to bolus feeds at same volume for 24 hours and then advance per protocol | Abx per empiric order set for NEC  Send Blood culture | BID AXR until clinically improving |
| Severe  (score >18) | Minimum 10 days | Continuous rate of 20ml/kg/day and if tolerated for 24 hours, advance by 1ml/hr q24hrs. If tolerating for 48 hours may transition to bolus feeds at same volume for 24 hours and then advance per protocol | Abx per empiric order set for NEC  Send Blood culture | BID AXR until clinically improving |
| Surgical | Minimum 4 days after source control | Once replogle output decreased and evidence of bowel function occurs, start feeds at continuous rate of 20ml/kg/day and if tolerated for 48 hours may transition to bolus feeds at same volume for 24 hours and then advance per protocol | Abx per empiric order set for NEC or per Surgery Team  Send Blood culture | POD 1 AXR, POD 4 AXR/prior to starting feeds, or in the setting of clinical decline |

Consult Surgery on all patients > score 4

AXR= Abdominal Radiograph (consider AP and Lateral)