Approach to a neonate with feedingintolerance(FI)

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Definitions:

- **Feeding tolerance** is the ability of the new born to ingest and digest milk withoutcomplications,
- **Feeding intolerance** is defined as: "the inability to digest enteral feedings presented asGRV (gastric residual volume) of more than 50%, abdominal distension or emesis orboth,and thedisruption ofthe patient's feeding plan". [1]
- There is no consensus, however, on the definition and management of feedingintolerance. Usually, an increased amount or abnormal nature (eg, bilious or bloody) ofgastric residuals or abdominal distension regardless of gastric residuals is consideredfeedingintolerance.[2]
- Although most episodes of FI resolve spontaneously and without sequelae, any signs offeedingintoleranceshouldberegardedaspotentiallyseriousbecauseoftheincreasedriskofNEC among theseinfants.

Sign and symptoms:

- Vomiting(alteredmilk/bileorbloodstained)
- Gastricresiduals>50%ofprevious4 hoursfeedvolume,persistentorincreasing.
- Abdominaldistension/increasingabdominalgirth withorwithoutvisiblebowelloops
- Bloodystools

- Temperatureinstability,apneicepisodesandlethargy

Clinical approach: Identifytheneonatesatriskoffeedingintolerance bytakingdetailedantenatalandnatalhistory(e.g. deranged dopplers, growthrestriction, asphyxiaetc.)

- Notetheclinicalcourseoftheneonatein NICU(e.g.occurrenceof sepsis,PDAetc.)
- Takethenutritionhistory(e.g.typeofmilkfeeding,volumegradedupeveryday etc.)

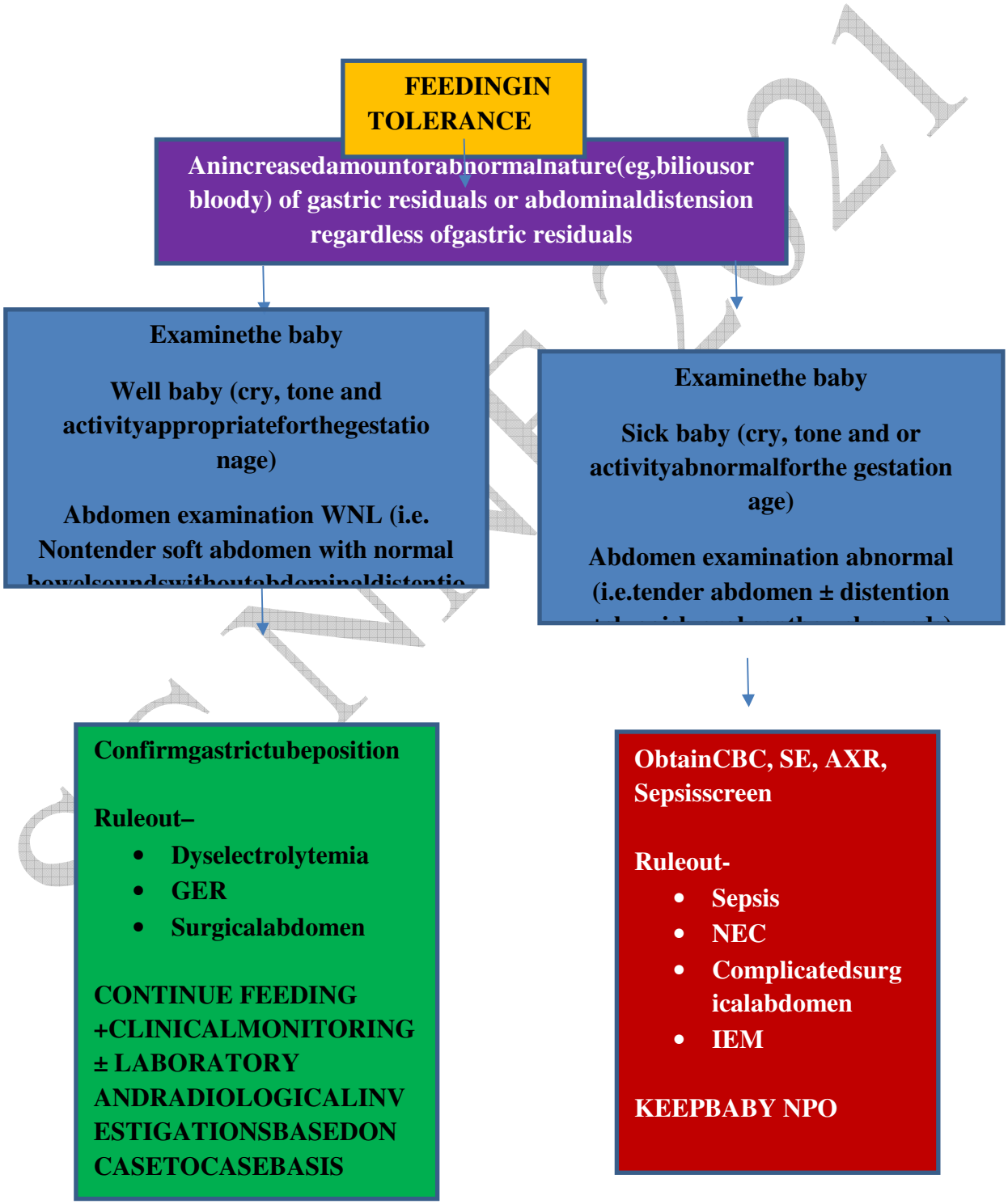
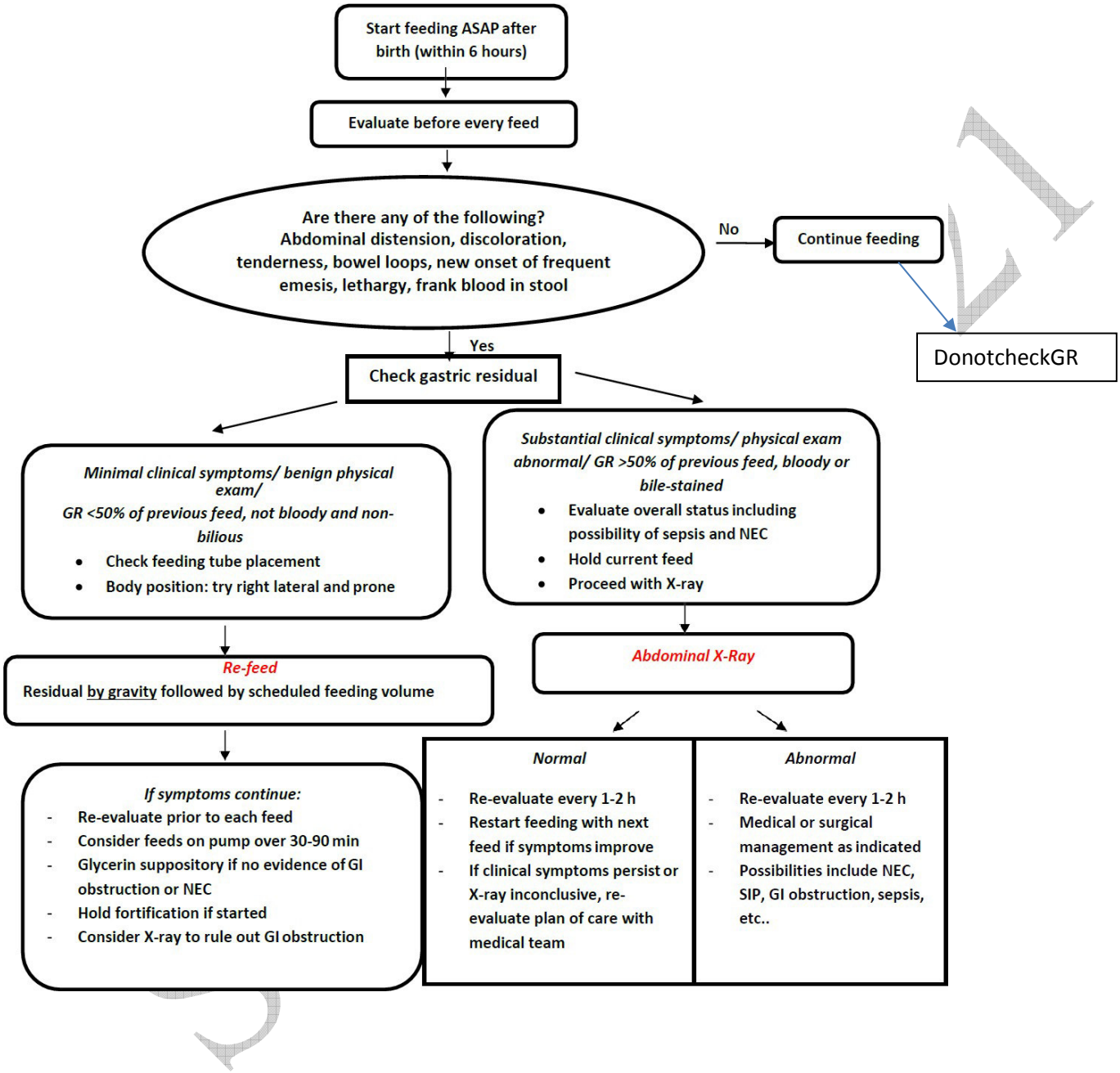


Fig.1FeedingIntolerance –ClinicalApproach

Fig 2 ManagementofFeedingIntolerance



AdaptedfromAlbertaHealthServices.

Summaryandredflags

- FI represents a daily issue in neonatal intensive care units, which should be managed oncase-to-casebasis.
- The routine aspiration of gastric residuals is a standard practice in most NICUs and isoftenused to determinefeeding tolerance.
- Theuseofgastricresiduals bythemselves is notuseful, othersigns of feedingintoleranceshouldbepresent.
- Donotcheckgastricresidualsandabdominalgirth routinely.
- Presenceof oneor more ofthefollowing shouldprompt anassessment:
    - Substantialorsuddenincreaseinabdominaldistentionor>2cmincreaseinabdominalgirth
    - Bloodystools
    - Vomiting,especiallybilious;notethatuncomplicatedGERiscommonininfants,including preterminfants,andisnotconsidered asignoffeedingintolerance.
- Severalinterventionsappearpromisingforpreventionandtreatmentof FIinpreterminfants ,but all of themstill need to beassessed infurtherdetail.

References:

1. FanaroS.Feedingintoleranceinthepreterm infant.EarlyHumDev.2013Oct;89Suppl2:S13-20.
2. RamaniM,AmbalavananN.Feedingpracticesandnecrotizingenterocolitis.ClinPerinatol.2013 Mar;40(1):1-10.
3. EnteralFeedingofPretermInfantsontheNeonatal Unit.NHSMarch2018