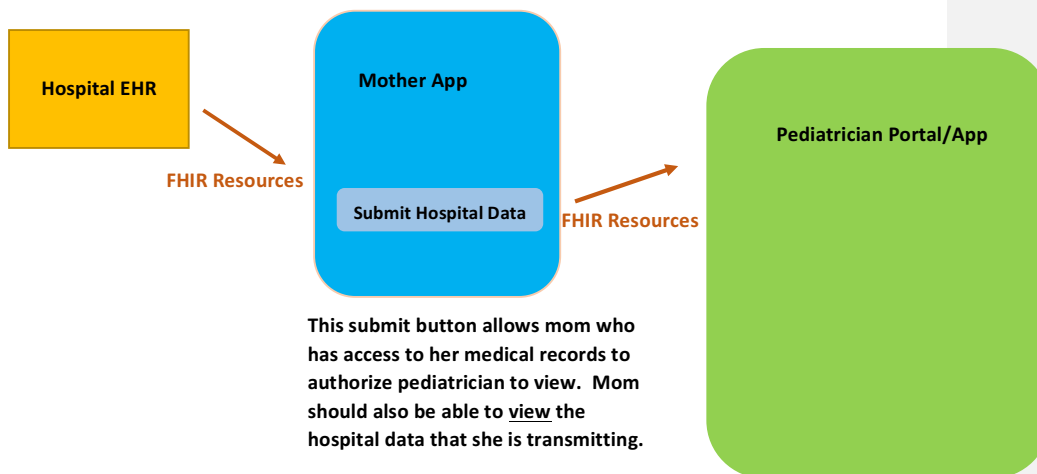


Project Flow

- Algorithm to identify babies of breastfeeding mothers in hospital EHR and *highlight* these babies in pediatrician portal (future GA Tech project)
- Determine FHIR resources to transmit the below data elements to the patient app **from the hospital EHR**, then allow patient to submit it to the physician portal; *Potential FHIR resources needed – patient, diagnostic report, procedure, observation*; FHIR value sets needed – SNOMED CT
 - Baby's birth time – *observation, patient*
 - Baby's birth weight – *observation, patient*
 - Baby's discharge weight
 - Type of feeding at discharge (breast milk only, formula only, mixed breast and formula feeding)
 - Exclusive breastfeeding during the birth hospitalization?
 - Urines/Stools in hospital (day of discharge)
 - Mother's risk factors
 - Age - patient
 - Maternal obesity – BMI (<https://hl7.org/fhir/2017Jan/observation-example-bmi.html>) – *observation, patient*
 - Type I/II diabetes – *diagnostic report, patient*
 - Polycystic ovarian syndrome - *diagnostic report, patient*
 - Hyperthyroidism - *diagnostic report, patient*
 - Hypothyroidism - *diagnostic report, patient*
 - Mode of delivery – spontaneous vaginal, forceps/vacuum, caesarean section – *procedure, patient*
 - Primary glandular insufficiency
 - Breast pathology/surgery
 - Want to know what day mother's copious milk came in? Note: flag if >3 days
- Mother to click submit and transmit hospital EHR information to physician portal to show latest baby vitals and weight, and mothers risk factors (along with breastfeeding data and survey responses)

Deleted:



Clinical Concepts

- If mom responds no to any of the survey questionnaire responses, this will trigger an flag/alert for pediatrician to investigate potential breastfeeding issues and then generate a referral to a lactation counselor
- It is expected that newborns will lose some weight in the first 5-7 days of life
 - A 5% weight loss is considered normal for a formula-fed newborn
 - A 7-10% loss is considered normal for breastfed babies
 - Most babies should regain this lost weight by days 10-14 of life
- After 7 days of life >10% weight loss should generate a flag that there is a breastfeeding issue
- Postnatal contacts are recommended for all mothers
 - 3 days, 1/2/4/6/9/12 months
 - six weeks after delivery

Comment [NJM(1)]: As discussed, this would be better information if tracked on a standard NB weight nomogram