Maternal Newborn Nursing Care Course
Lactation and Initiation of Breastfeeding
Clinical Management for Breastfeeding Mothers & Babies

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Lactation Training and Update on Clinical Management

Introduction and Disclaimers ....

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I have nothing to disclose
I may discussed off label use of medication(s)

Rose’s Clinical Background

- Loma Linda University (1977 to 1984)
- High Risk Labor and Delivery
- Nurse Clinician
- Labor & Delivery, Postpartum, Nursery, NICU
- Lactation Consultant (started their lactation program)

- Sharp Mary Birch (1984 to 2000)
- Lactation Consultant (started their lactation program)
- UC San Diego Lactation Program (2000 to current)
- Outpatient Lactation Consultant (started outpatient lactation program)
- University of California (1990 to current)
- Clinical Instructor

- Lactation Consultant Experience
  - 32 years (40 as RN)
  - “Subspecialties”
    - Premature babies
    - Induced/adoptive nursing
    - Additional areas of interest/ focus
    - Postpartum depression
    - Perinatal Hospice
Clinical Background

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  - Outpatient Lactation Consultant (started outpatient clinic)

- **University of California** (1990 to current)
  - Clinical Instructor/Outpatient clinical mentor

Info

Lactation Consultant Experience

- 32 years
  - Started the Lactation programs at Loma Linda, Sharp Mary Birch, and Kaiser Outpatient
  - 7 years in Level III NICU as Lactation Consultant
  - Clinical Instructor and mentor at UCSD
  - "Subspecialties"
    - Premature babies
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Lactation Training and Update on Clinical Management

- Introduction
- Objectives
  - Benefits of Breastfeeding/Breast Milk
  - Contraindications
  - Establishing Successful Breastfeeding
  - Hospital Management
    - "Reality"
  - Common Issues and Concerns
    - Mom
    - Baby
- Q & A
Benefits of Breastfeeding

- Resistance to Infectious Diseases
- Enhanced Immune System
- Nutritional and Growth Benefits
- Psychological & Social

Benefits of Human Milk and Breastfeeding

- Nutritional
  - Species specific
  - Easily digested
  - Changes to meet growing needs
  - Iron absorption greater

The Breastfed Baby
**Benefits of Human Milk and Breastfeeding**

- Medical
  - Anti-allergic properties
  - Anti-infective properties
  - Immunological properties
  - Involution of the uterus
  - Oral facial development
  - Family spacing
  - Weight adjustments
  - Less kidney load
  - Immobilizes bacteria in gut
- Enhances brain development
- Reduced incidence
  - Juvenile diabetes
  - Adult chronic illness
  - Crohn’s disease
  - Ulcerative colitis
  - Breast cancer pre menopausal
  - Ovarian cancer
  - Childhood cancers
  - SIDS
  - Cell memory: Cholesterol

**Benefits of Human Milk**

- "Gee Whiz" Facts
  - Premature baby/preterm breastmilk
  - Other uses of Breastmilk
  - Cancer

- Enhances brain development
- Reduced incidence
  - Juvenile diabetes
  - Adult chronic illness
  - Crohn’s disease
  - Ulcerative colitis
  - Breast cancer pre menopausal
  - Ovarian cancer
  - Childhood cancers
  - SIDS
  - Cell memory: Cholesterol
Benefits of Human Milk and Breastfeeding

- Psychological
  - Clean, warm, available
  - Convenient
  - No sour smell
  - No BM smell
  - No staining clothes
  - Relationship enhancement
  - Maternal Satisfaction
  - Relaxing for mom

- Social
  - Economical
  - Environmental impact
  - Employer/employee satisfaction
  - Reduced health care costs

Psychological Factors

- Hormones of Lactation
- Factors affecting mother’s decisions
- Families/fathers/significant others
- Breastfeeding attrition

CONTRAINDICATIONS TO BREASTFEEDING
Contraindication vs. Disadvantages

- Perceived disadvantages – not clinically oriented
- Inconvenient
- Fear of failure
- Lack of support system
- Revulsion of breastfeeding
- Embarrassment
- Return to school or work
- Concern about effect on figure
- Lack of correct information
- Myths

Maternal Medications

- What mom takes most likely pass into milk
- Usually ¼< 1-2% maternal dose gets to baby

Resources and References:
- AAP
- Medications and Mothers Milk (Current edition) (Tom Hale)
- www.InfantRisk.com
- www.MommyMeds.com (consumer oriented)
Breast Surgery

Types of Surgeries
- Augmentation
- Reduction
- Biopsy

Types of incisions:
- Periareolar
- Sub-mammary
- Umbilicus
- Axillary

Breast Reduction

Contraindication vs. Disadvantages

Drugs of Abuse
- Never Recommended/Mother's NEED to be told in very a straight forward way – DON'T DO IT
- Supervision
- AAP: "The committee on drugs believes strongly that nursing mothers should not ingest any of these compounds. Not only are they hazardous to the nursing infant but they are detrimental to the physical and emotional health of the mother."
True Contraindications

- Galactosemia
- PKU (some breastfeeding can be done)
- HIV (in the US)
- Chemotherapy treatment/drugs

BREASTFEEDING:
WITH ALL WE KNOW
AND TEACH,
WHY DO SO MANY
MOTHERS STILL FAIL

“Wellness Bias”

- Serious pitfall – especially in telephone triaging
- Assumptions
- High risk vs. Low risk
- Expect Low risk/normal, assess for high risk/risk factors
Basic Breastfeeding Education

- What ALL new breastfeeding mothers need to be taught, demonstrated, reviewed.
- First baby, 5th baby, it shouldn’t matter.
- NEVER ASSUME
- Basic principles need to be individualized to each mom

Factors that Influence Successful Breastfeeding Establishment & Management

The “Old Norm”

- Pregnancy the “old fashioned way”
- Mom goes into labor “on her own”
- Baby delivers at 38-41 weeks gestation
- Several days in hospital
The “New Norm”

- Assisted pregnancy
- Advance maternal age
- Increased multiple births
- Surrogacy
- Increased C/S deliveries
- Increased inductions
- Deliveries before EDC***
- More maternal problems
- Larger Premature babies staying with moms on postpartum unit (not going to NICU)
- Treated as “dyad couple”
- Followed with SOC for term/healthy dyad

Review Anatomy & Physiology

- Breast
  - Changes
  - Internal/External structures
  - Nipples – Everted, flat,
    - “Pinch” test
    - Prenatal treatment ?
    - Post delivery treatment

Review Anatomy & Physiology

- Physiology of Lactation
  - Prolactin
    - Makes milk
    - Natures “Valium”
  - Critical :
    - No Prolactin = No Milk
    - Low Prolactin = Low Milk Volume
Review Anatomy & Physiology

- Physiology of Lactation
  - Oxytocin: Milk Ejection Reflex– releases milk
    - Stimulated by:
      - Baby at breast
      - Pumping breast
      - Psycho-social: Hearing infant/thoughts of Baby
  - Signs of Milk Ejection Reflex
    - Audible swallowing
    - Leaking
    - Uterine cramping
    - Breast sensations
  - Inhibited MER -- “Performance anxiety”

Maternal Risk Factors

- History of BF problems
- Breast surgery
- Breast abnormality
- No breast changes with pregnancy
- Teen
- Many others
  - Prenatal
  - Intrapartum

Maternal Physical Assessment

- Maternal Health History
  - Medical & Health History
  - Obstetric History
  - Labor & Delivery ["Birth Story"]
  - Breasts
  - Nipples
  - “Red Flags” for BF Problems
**Infant Risk Factors**

- Premature
- Borderline Premature
- Poor latch
- No latch
- Small baby
- Oral anatomically prob
- Many others

**Infant Assessment**

- Gestation
- Size
- “Birth Story”
- Suck Assessment
- “Red-Flags”

**“Wellness Bias”**

- Serious pitfall – especially in telephone triaging
- Assumptions
- High risk vs. Low risk
- Expect Low risk/normal, assess for high risk/risk factors
Which One Should Mom Use???

It Does Not Matter……

What ever works the best for mom and baby…that is the one to use. Moms may use each one at various times depending on the position your baby is in

Positioning…

Cradle
- Advanced hold
- Difficult to “find” breast
- Not great for large, pendulous, or shallow breast
- Typical for “natural breast feeders”

Positioning…

Clutch/Football
- Easier to mom to see infant
- Not as many nose and breathing issues
- Assistant can see what’s happening
- Great for large breasts
- “Winged” arms
Positioning…

**Cross Cradle**
- Great “training” position
- Opens breast
- Easier to “ridge” breast to match infant mouth

Cross Cradle: Works Well with small or premature babies

Establishing Breastfeeding
- Positioning of mother and infant
- Side lying
  - Great way to get more rest
- Nap time...Day or Night time

Mothers worldwide nurse like this
Positioning…

- Side lying
- Hip rotation
- Infant safety issues
- Back Support

Establishing Successful Breastfeeding

- Proper “Latch-On”
- Correct Attachment may be the MOST important factor for preventing problems
  - Importance of correct latch
    - Maximize intake
    - Minimize Sore Nipples
    - Maximize breast stimulus = milk supplies
  - No substitute for direct observation of breastfeeding!!!

Establishing Successful Breastfeeding

- Proper “Latch-On”
  - What is “proper” latch-on
    - Infant gum line well forward over lactiferous sinuses
    - Tongue positioned under areola
    - “Fish lips” – lips flanged
    - Jaw movement visible at temple of infant
    - Jaw glide visible at base infant ear
  - Adequate suction:
    - Full cheeks – no dimpling
    - No clicking noise
Establishing Successful Breastfeeding

- Proper “Latch-On”
  - Assessing latch-on
  - MUST LOOK !!
  - Mom’s assessment
  - Check: Position mom and baby
    - Orientation to breast
  - What is mom feeling at the breast
  - LISTEN !!!
  - If it’s not broke don’t fix it so it is broke !!!

Most Important Question

How old is the baby?

Establishing Successful Breastfeeding

- How often to breastfeed
  - How old is the baby? Goal ?
  - Define breastfeeding for this age
- AAP Recommendations
  - 8-12 times in 24 hours
  - Signs of milk transfer
  - Typical feeding session (age specific)
  - Maximum daytime feeding interval 2-3 hours
  - Beginning one feed to beginning next feed
Evaluation of Feedings

- Parameters Beyond the Breastfeeding Interaction
  - Urine Output
  - Stool Output
  - Weight gain/loss
  - Growth Spurts

Establishing Successful Breastfeeding

- Assessment Milk Intake
  - What parents need to know
    - Weight gain minimum ½ ounce per day
    - 4-7 ounces per week
    - MUST regain birth weight by 2 weeks
      - Average is by 5-7 days
  - Output:
    - Day 1-5: 1 pee 1 poo per day of life
    - After day 5: 6-8 wet diapers, 3-5 stools per day
  - Demand and supply !!

Breastfeeding Management Under Difficult Circumstances

- Premature
- Near term/"Borderline" Premature
- Compromised newborn
- Establishing lactation/milk supply is critical
Managing Breast and Nipple Problems

- Flat nipples
- Inverted nipples
- Nipples that retract
- Sore nipples
- Engorgement

Clinical Management of Breastfeeding Problems

- Flat or inverted nipples
- What to do...
  - Breast shells ???
  - Ridge breast
  - Position
  - Extra breast support
  - May pump 3-5 minutes
  - Encouragement
  - FOLLOW UP

Sore Nipples: LOOK!

- Transitory & Solvable!
- Peak: 3-5 days Subside: 7-10 days
- Assessment: How old infant?
  - Degree of soreness
  - When began
  - Does interfere with feedings?

What to do...

- Short frequent feedings?
- Alternate sides?
- Change infant position
- Correct latch
- Downward chin pressure
- Colostrum or lanolin
- Breast shells
- Pumping
- FOLLOW UP

FOLLOW UP
Clinical Management of Breastfeeding Problems

- **Engorgement**
  - Positive sign
  - Temporary
  - Severe engorgement can cause milk production suppression

- **Prevention is the Key**
  - Soothing and frequent at breast
  - Efficient and frequent removal of milk

Breast Engorgement

- **Tail of Spence**

- **What to do...**
  - Hot or Cold?
    - Milk flowing: Warm before and cold during feed
    - No milk flowing: Only cold therapy
    - Hand expression
    - Breast Bath
    - Frequent unrestricted time at breast
    - Supportive bra
    - May need pump:
      - 5 min before – 10 min after

Baby Feeding/Latch Problems

- Sleepy/not interested
- Latches but doesn’t maintain latch
- Latches incorrectly
- Actively refuses to latch
- "Nurses all the time"
First Question ????

How old is the baby ??

Additional Issues & Concerns

- Supplementation
- BOTTLES
- Feeding Alternatives
- Nipple Shields
- Breast Pumps
- Medications & Breastfeeding
- Maternal Illness
- Discharge Planning

Discharge Planning

- Starts on Admission
- Resources & Referrals
- Referring to Lactation Consultant
- Referring to outpatient Lactation Clinic
Referring to Lactation Consultant

During hospital stay
- Inconsistent latch on
- Nurses less than 5 min after 24 hours
- No consistent audible swallowing
- Significant nipple pain
- Nipple trauma
- Risk Factors
- others

Referring to Lactation Consultant

Outpatient Clinic
- Any of the reasons for referring to the inpatient LC
- 1st time BF moms
- Any BF mom – regardless of how many times she has BF, if any of the above exist

Excessive wt loss at time of discharge
- jaundice
- Multiples
- Premature
- Borderline premature
- Risk factors
- Patient request
- others

Discharge Planning

Observe a feeding before discharge
Arrange follow up for mother and infant within 48-72 hours of hospital discharge in Lactation Clinic
- Check infants wt / % wt loss
- Voiding and stooling patterns
- Jaundice
- General physical exam
SUMMARY & RECOMMENDATIONS

- Know the basics
- Know how to establish effective breastfeeding
- Know how to address the common problems that moms and babies have
- Know what you don’t know
- Refer

References

- Lauwere and Shinskie, *Counseling the Nursing Mother* Jones and Bartlett Publishers 2000
- Hale, Thomas, *Medications and Mother’s Milk* Pharmasoft Medical Pub, 2002
- J. Auerbach and Riordan, J, *Breastfeeding and Human Lactation* 1999
Role of Pediatrician in Promoting and Protecting Breastfeeding

- Promote and support BF enthusiastically
- Become knowledgeable in both physiology and clinical management of BF
- Work collaborative with OB
- Promote hospital P&P's that support BF
- Know the local resources
- Encourage insurance coverage
- Teamwork/collaboration with other health care providers
- Promote BF education as routine component of Medical school and residency education
- Encourage media to portray BF as positive and the norm
- Encourage employers to provide facilities for workplace support of breastfeeding/breast pumping

Postpartum Risk Factors For Lactation Failure

- The System
  - Night bottle feeding in the nursery: Rest for mother
  - Inappropriate supplementation
  - Over eager helpers
  - Formula gift packs
  - Heavy painkillers / sedatives
  - Inappropriate discontinuance of breastfeeding
    - Maternal meds or jaundice
Hospital Problems

- Non-supportive Leaders/managers
- Lack of training/"retraining"
- Non-supportive physicians
- Policies/procedures
- ? Staffing/Time

Role of Hospitals (Nurse directors, managers, clinical specialists, charge nurses, staff nurses, etc.)

- Recognize the importance and benefits of Breastfeeding/Breastmilk
- Support practices that allow for research based P&P’s, training to staff and staffing appropriate for quality care
- Have IBCLC on staff
- Etc..................

Follow - Up

- Hospital stays are short
- A lot can interfere with getting breastfeeding off to a good start
- Breastfeeding is not established by the time mom and baby are discharged
- Follow-up after discharge needs to be a basic SOC
Referring to Lactation Consultant

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- Jaundice
- Multiples
- Premature
- Borderline premature
- Risk factors
- Patient request
- Others

Social and Cultural Trends/Issues

- Cultural assessment
- Common cultural behaviors
- Historical and Social Trends

Learn from your patients!
Learn from your patients' families!
Breaking the Barriers ...

- Mother/Baby Issues
  - Sleepy baby, fussy baby, and latch issues
  - Hunger vs. suckling needs
  - Sore Nipples
  - Engorgement
  - Cultural Differences and concerns respected
    - "No tiene leche" "I have no milk"
    - "Breast AND Bottle"
  - Mother/Baby separation

Clinical Management of Breastfeeding Problems

- Baby not interested or very sleepy
  - Baby awake but just lays at breast
  - Possible causes:
    - Less than 24 hours old (Infant states)
    - Birth Story
    - *Medications: Pre and post delivery
    - Routine supplementation
    - Physiologic jaundice
    - *Illness (Sepsis)
    - *Hypoglycemia
    - Prematurity
    - Room or body temperatures

Clinical Management of Breastfeeding Problems

- Baby Latches, but doesn’t maintain latch
  - Baby give some attempts and/or pulls away after sucking a few times only
  - Possible Causes
    - Techniques
    - Flat/inverted nipples
    - Engorgement
    - Tight Frenulum
    - Suck Problems
    - Premature
  - What to Do
Clinical Management of Breastfeeding Problems

Baby latches but incorrectly

- Mom may c/o sore nipples – may have bruising or areola, irritated, reddened nipples, blisters, cracks

Possible Causes
- Techniques – poor latch most common cause = not opening mouth wide enough to allow for good latch
- Mom:
  - Structural
  - Pulling back on breast
- Infant:
  - Structural
    - Receding Chin
    - Lower lip rolled inward
  - Frenulum
  - "Bottle suck"

Baby latches but incorrectly

What to do ...

- Mom: Position of comfort
  - Ridge breast
  - Breast milk
  - Lanolin
  - Hydro gels
- Infant:
  - Organize
  - Orient to breast
  - Roll lower lip outward
  - Gently downward chin pressure
  - Suck organizing

Clinical Management of Breastfeeding Problems

Baby actively refuses to latch

- Pushes away – cries – screams – won’t latch at all

Possible Causes
- Mom
- Baby
Clinical Management of Breastfeeding Problems

- **Breast Refusal**
  - Normal newborn behavior: Lick & Look, Bobbing and sweeping
  - Mom: Techniques: Small/flat/inverted nipples, Engorgement
  - Infant: Disorganized: Disorganized suck pattern, Tongue thrusting, Tongue thrust
  - Tight frenulum
  - Previous Negative Stimulus

- **What to do ...**
  - Mom: Position of comfort: Breathe breast
  - Infant:
  - Organize
  - Orient to breast
  - Suck organizing
  - OT Consult before discharge
  - Pump and Feed the baby

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Breast Refusal

**What to do ...**
Identify cause/reason
Mom: Position of comfort
  - Ridge breast
Infant:
  - Organize
  - Orient to breast
  - Suck organizing
  - OT Consult
  - Pump and Feed the baby

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“Nurses All the Time”

- **What to do ...**
- Define “All the Time”
- **Basics**
  - How old infant
  - Expectations of feeding session
  - Goal for day of life
  - Know “age specific” BF
  - Mom: Position of comfort
  - Educate to expectations/goals
  - Infant:
    - Organize
    - Make sure infant attached far back onto breast
    - Stimulate sucking pattern
Clinical Management of Breastfeeding Problems

- Baby nurses “all the time”
  - Infant doesn’t seem satisfied at breast
  - Snacking and sleeping
  - Infant BF over hour at time

- Possible Causes
  - May be normal
  - Time of day
  - Snacker
  - Milk supply issue (rare)

Supplementing

- Reduces milk removal

- Reasons to supplement:
  - Hypoglycemia
  - Jaundice
  - Mother/Baby separation
  - Latch:
    - Infant unable to
    - Maternal: to painful

Supplementing

- What to supplement:
  - Mother’s own milk: EBM
  - Another mother’s milk
    - Fresh
    - Donor
  - ABM: Artificial Baby Milk
  - Water
    - Rare
    - Contributes to increase in jaundice
Supplementing

How to supplement
- Prefer no or limited bottle use

Finger Feeding
- Purpose:
  - Relax infant mouth
  - Organize suck
- Largest finger possible
- Dropper or SNS
  - Commercial
  - #5 French with 20cc syringe

Cup
- Safe
- Infant lead
- Teaches tongue extension

SNS: Supplemental Nursing System
- Finger
- At breast
- Commercial and #5 French feeding tube

Bottle: "What's the big deal?"
- When to use
  - Long term supplementation
- When not to use
  - Short term situation
- HOW to use
  - Breastfeeding friendly behaviors
  - Rub nose to chin and let infant invite in
- Which one?
  - Avent
  - Regular Ross or Mead Johnson
Nipple Shields

Reasons for use …

- Maternal
  - Nipple unable to ridge
  - Flat or inverted
  - Short shanked
  - Edematous
  - Engorgement
  - Sore nipples
  - Doesn’t want infant at breast

- Infant
  - Nipple preference
  - Latch problems
  - Discordinate suck

Medications/Drugs and Breastfeeding

- Breastfeeding and medications is not the same as pregnancy and medications

- Factors in choosing a Drug
  - Age of infant (most important)
  - The drug and its toxicity
  - Experience with drug in infants
  - Dosage and duration of therapy
  - Quantity of milk consumed
  - Generally – only 1-2 % gets into the milk

Breast Pumps

- Breast Pumps
  - Many Types
  - Hospital Grade = To establish
  - Purchase = For already established

- Why pumping ?
  - Establish/Protect milk supply
  - If in doubt - PUMP