Integrated Family Delivered Neonatal Care
From Quality Improvement Project to standard of care

Aniko Deierl, Jayanta Banerjee
On behalf of the IFDC core group
Imperial College Healthcare NHS Trust
Neonatal Department
Strategy and funding

Funding for 3 years from Imperial Health Charity 2016-19 (£280,000)

Phase 1 Developing the IFDC care bundle and mobile App (Sept 2015)
• Developing an experience co-designed care bundle, educational support material together with MDT team and veteran parents.

Phase 2 Implementation of the new care model (Apr 2017)
• Implementation with QI methodology will the support of additional staff (coordinator and psychology assistant) for the first 12 months.

Phase 3 Improving care bundle based on initial experience (2018/19)
• Continuously assess and review outcome measures, parent and staff feedback and modify care bundle accordingly.
• Rolled out as standard of care
• App update and website March 2019

Phase 4 Sustainability and transferability (current)
• Develop a strategy to ensure that this model is sustainable without additional staff requirement, implementation in other neonatal units within neonatal network
Integrated Family Delivered Neonatal Care From Quality Improvement Project to standard of care

Unifying goal:
To support parents to become equal members of the neonatal team and participate in providing active care for their infant with the help of a competency-based training.
Integrated Family Delivered Neonatal Care Bundle

5 Values:

Educate  Engage  Empower  Enable
Driver diagram

To improve infant health outcomes, parent experience and parental mental health

Excellent clinical care
- Facilitating better parenting skills and confidence
- Training parents in routine neonatal care to become primary caregivers

Involving parents in their baby’s care
- Establish IFDC as standard of care
- Compassionate and caring culture in the team
- Engagement and availability of appropriately trained staff

Working with parents in parenthood
- Reduce parental anxiety and stress
- Facilitate parent-infant bonding with early skin-to-skin
- Rolling parent education programme in small groups
- Engage parents with IFDC care model
- Developing and implementing IFDC mobile App

AIM
PRIMARY DRIVERS
SECONDARY DRIVERS
CHANGE IDEAS

Staff to complete IFDC training module
Staff education programme
Project coordinator to support families in NICU journey
Development of IFDC care bundle
Facilitate parent infant bonding with early skin-to-skin
Rolling parent education programme in small groups
Engage parents with IFDC care model
Developing and implementing IFDC mobile App
Developing competency-based training material and assessment
NICU environment encouraging parental presence
Parents participate in ward rounds
On-going parent education programme and support
Parental assessments to measure anxiety, bonding and experience
On-going post discharge support
IFDC care bundle developed

- Mobile App
- Parent information leaflet
- Parent Binder
- Ward round presentation proforma
- Competency Assessment Booklet
- Parent Observation chart
- Rolling parent education programme and special sessions
- Staff education programme
IFDC Project material developed

Ward round presentation proforma

BLISS: ‘Best practices’

<table>
<thead>
<tr>
<th>How to present my Baby on the Ward round?</th>
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<tbody>
<tr>
<td><strong>Baby’s Name</strong></td>
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<tr>
<td>Birth Weight:</td>
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<td>Gestation at birth:</td>
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</table>

**Medical history during your Baby’s birth and stay:** Any specific problems or events

Your Baby’s bedside nurse can help to put this list together...

**Current medical care:**
- Breathing support any recent changes:
- Feeding Update: What is your Baby eating and how often:
- How are you getting on making milk for your Baby and how are they doing with sucking and feeding:

**Medications:**

**Involvement in your Baby’s care:** Explain what you are doing for your Baby Including skin to skin update

**Anything you think the medical team today should know about today:** Share any details/recent changes/observation about your Baby you feel important:

**Questions / Concerns**

* Adapted from Mount Sinai Hospital FiCare Programme

Family Integrated Care * Parent Education Program
IFDC Project material developed

## Parent Observation Chart

<table>
<thead>
<tr>
<th>Name</th>
<th>DOB</th>
<th>Birth Weight</th>
<th>Name of Nurse</th>
<th>Gestational Age</th>
<th>Corrected Age</th>
<th>Current Weight</th>
<th>Age in Days</th>
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</thead>
</table>

Parents plan for today

<table>
<thead>
<tr>
<th>Time hh:mm</th>
<th>Observations (oxygen requirement, respiratory rate, temperature, etc)</th>
<th>Name</th>
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## Parent Feeding and Care Chart

<table>
<thead>
<tr>
<th>Name</th>
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<tr>
<th>Type of milk given</th>
<th>Amount</th>
<th>ml/kg</th>
<th>Volume and frequency</th>
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<table>
<thead>
<tr>
<th>Time</th>
<th>Milk type</th>
<th>Food method</th>
<th>Volume (ml) / duration of breastfeeding</th>
<th>Aspirate</th>
<th>Nappy change</th>
<th>Comments</th>
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</table>
My Daily Care Plan

My Name is ________________________________

My Parents names are ________________________________

My Nurse today is ________________________________

When my parent(s) come, they are able to:

- Sing and read to me
- Do my mouth care
- Change my nappy
- Take me out and hold me
- Do skin to skin
- Give me a top and tail wash
- Give me a wrapped bath
- Take my temperature
- Check my tube pH
- Hold my tube feed
- Measure and warm my milk
- Breastfeed me
- Bottle feed me
- Give me medications/vitamins

My parent(s) are coming in at ________________________________

About me:

I really like...

My feeding plan is ...

Next steps to home are ...

- My local hospital is __________________
- My birth/GP registration is done
- I have had BLS/safe sleep training
- I am in a cot, on my back, no rolls

Thank you for helping to take care of me.

Baby Feeding Checklist

1. First 6-12 hours: Initiation of Lactation
   - Breast milk expression pack given and explained
   - Mum shown how to do breast massage and hand express
   - Value and use of colostrum explained
   - Colostrum received: (If no measure support is given, particularly if mum in another hospital or ITU)

2. Within the first 24 hours of admission
   - Key factors in successful lactation, early feeding and building a loving relationship discussed.
   - Importance of good hygiene practices, hand washing and daily showering when collecting milk explained.
   - Milk storage and labeling guidelines explained.

3. Day 2-5: supporting expressing
   - Use and cleaning of electric breast pump demonstrated
   - Assessment of expressing.
   - If daily volume of milk < 750mls appropriate support given.

4. Day 10: supporting expressing and optimal volume
   - Assessment of expressing.
   - Feeding readiness cues discussed.
   - Positioning and attachment observed and supported.
   - Transition from tube to breast feeding discussed (including signs of milk transfer and NICE top up chart).
   - Supportive bottle feeding discussed.
   - Responsive feeding explained.

5. Day 14: maintaining optimal milk production
   - Assessment of expressing.
   - If daily volume of milk < 750mls appropriate support given.

6. Stable and ready to suck feed
   - Introducing milk and solids discussed.
   - Responsive feeding explained.
**IFDC Project material developed**

**Parent Competency Booklet**

<table>
<thead>
<tr>
<th>Knowledge and skill</th>
<th>Familiar with the task, able to explain process</th>
<th>Able to perform with staff’s coaching/support</th>
<th>Performs independently under staff’s supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can change my Baby’s nappy.</td>
<td>Signed by parent</td>
<td>Signed by staff</td>
<td>Signed by parent</td>
</tr>
<tr>
<td>I can provide skin care.</td>
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<tr>
<td>I can provide mouth care.</td>
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<tr>
<td>I can provide eye care.</td>
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<tr>
<td>I can assist with applying oxygen saturation probes and leads</td>
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<tr>
<td>I know what these terms mean: “apnea, bradycardia, desaturation”</td>
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<tr>
<td>I know when and how I can use stimulation to help my Baby with desaturation/bradycardia episodes and know when to call for help.</td>
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<tr>
<td>I can take my Baby’s temperature, record it and understand temperature instability</td>
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<tr>
<td>I can dress/undress my Baby</td>
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<tr>
<td>I feel comfortable taking my Baby in and out of the incubator or cot.</td>
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</tbody>
</table>
Parent engagement and education

- Self directed learning from App chapters
- Rolling small group teaching with MDT input
  - Orientation
    - Lactation/ breastfeeding session
    - Parent group
    - MDT teaching – nutrition, developmental care, SLT, pharmacist
    - Resuscitation
    - Neonatologist’s session
- Special sessions:
  - Meditation
  - Crafting
  - Lullaby hour therapeutic music sessions
- One-to-one training
  - Cot side one-to-one training
  - Competency based training – tube feeding, oral medication, charting etc.
Imperial Neonatal IFDC mobile App

App structure
• No connection to patient data or any hospital system
• Parents can register with their name & email
• Data entry only by parents
• Handles multiples
• Non-interactive:
  • Educational section about neonatal care and Glossary of terms
  • Developmental timeline
• Interactive:
  • Parents can record their journey
  • Diaries: personal memories, (milk) expressing, feeding, skin to skin, growth chart
  • Notes and Message functions
Outcome data

Data collected (Apr 17-May 18):

- Infant outcomes (LOS as primary outcome)
- Spot questionnaire on parent experience
  - Effective, efficient FIC delivery
  - Immediate feedback
- Discharge questionnaire
  - What is going well, What needs improvement, how FIC helped
- Discharge interview with psychologist assistant
  - For qualitative analysis
Summary

- Imperial is the first level 3 unit in the UK to implement and assess outcomes of FICare bundle
- IFDC mobile app enriched the IFDC programme at Imperial and available to download across the world
- Over 200 families benefitted from this new care model
- Nearly 1100 IFDC Imperial neonatal app downloads across the world
- FICare programme such as IFDC has
  - Reduced length of stay
  - Improved breast milk feeding
  - Early establishment of suck feeding
  - May reduce duration of oxygen intake
- Improved parental experience, confidence and reduced parental anxiety
- More qualitative data is awaited
Thank you for your attention!

Like us and follow on Facebook:
Ifdcqi
Twitter: @DeierlA
Send your feedback to: imperial.ifdc@nhs.net

We are grateful for the support of our veteran parent group, Imperial Health Charity, all parents who participated in the IFDC program, and neonatal nurses, AHPs, doctors to make this possible!