Cubitus baby -
An innovation giving time for saying farewell

Ingela Rådestad
Midwife, Professor
To give birth to a stillborn baby – women’s situation three years after the baby’s death

If the woman had memories: hand and foot-prints, lock of hair photographs.......  

If the woman had spent time with the baby, time to saying farewell......

Better outcome
Stillborn gestational week 22+ 429 (3.8/1000)
Neonatal death (0-27 days) 197 (1.8/1000)
In Sweden in 2013 626 babies

Global
2.6 million babies are born dead each year
98 % in low and middle income countries
"Many people think that the worst thing that can happen is to give birth to a dead child, but it was not so bad. The worst thing was to leave her there in the hospital."

2.5% parents took their baby home before the funeral

665 (32%) mothers wanted to take their baby home if anyone had said that this was possible

Spädbarnsfondens Web survey in 2011
“When I lost my daughter two years ago, they kept her in a regular refrigerator. Not only that you lost her, but also stored in this way is terrible.”

Spädbarnsfondens Web survey, 2011
“Just the thought made me nauseous, that our wonderful little boy would be in a sterile cold room.”

Spädbarnsfondens Web survey, 2011
Dignity as well as to optimize the parents control of their children.

With support from Idélab Mälardalen University a designer could materialize my thoughts to a prototyp that could be tested in laboratory and for clinical use.
Functional and design prototype - the cooling capacity tested in laboratory

Criteria for the development
- Keeping cool
- Hygienic
- Easy to use
- Safe and secure
- Dignified
- Sustainable development
Tested at two birth clinics

Evaluation:
Temperature when the child was placed in Cubitus baby?
Temperature when the cooler unit was changed?
Number of times the coolers units were changed?
Midwives' perception of manageability?

It works!!!

A product development team of engineers, designers, and sewing suppliers is assembled.
The ideas materialize into functional solutions, different proposals for the design to be developed, one is chosen.
Different solutions are considered

<table>
<thead>
<tr>
<th></th>
<th>Cost</th>
<th>Cooling performance</th>
<th>Complexity</th>
<th>Logistics / Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Frigelit</td>
<td>5</td>
<td>5</td>
<td>10</td>
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<td>2.</td>
<td>Vacuumformed plastic + frigelit system</td>
<td>3</td>
<td>3</td>
<td>16</td>
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<tr>
<td>3.</td>
<td>Barngren concept + skim</td>
<td>4</td>
<td>12</td>
<td>3</td>
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<td>4.</td>
<td>Rotationtype</td>
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<tr>
<td>5.</td>
<td>Varrdejdd sery + skim</td>
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<td>12</td>
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<td>6.</td>
<td>Pettdejdd frigelit</td>
<td>5</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>7.</td>
<td>Glassfiber + frigelit</td>
<td>2</td>
<td>6</td>
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</tbody>
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Testing of various methods for bonding styrofoam
Handmade frame of foam as a base, testing the cooling block
Simple technique for cooling
Cooling blocks can be replaced without "disturbing" the child.
Taking the baby home before the funeral
Cubitus Baby as a coffin
A generous donation

Ruth and Richard Julins stiftelse
supporting the non-profit project

Production of 50 Cubitus baby
and all distribution costs
My office before the implementation
Implementation
13/10, 2012 - 20/11, 2014

Map of Sweden

Sophia Hemmet Högskola
115 unique clinical reports from the use of Cubitus baby - data collection on going

“A far greater sense of dignity in these situations”

“Great advantage to be able to have the baby in the room”

“Cosy and respectful”
Spädbarnsfonden
Yesterday at 11:09

När föräldrar mister sitt barn före eller i samband med förlossningen blir deras möte med barnet också ett avsked. Föräldrarna behöver tid för avsked. Syskon, andra anhöriga eller vänner till familjen behöver också tid, både för att möta och ta avsked av barnet. En död kropp... See more

10 000 likes and over 500 comments during 24 hours
Honourable mention Design S, Sweden’s national design award, 2014

”The product shows that design does not avoid difficult issues. Situation design at its best. Creates closeness and care in the most indescribable of moments.

With great understanding for the need for integrity and practical necessity during the heaviest grief, the product acts as a silent companion during the time needed. The absolute neutrality of the design is commended.”
From idea to implementation seven years
a non-profit project

International Stillbirth Alliance conference in Birmingham 2007
All birth clinics in Sweden 2014

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Idélab, Mälardalens högskola
Södermanlands Sparbank
Almi Södermanland
Sophiahemmet ideell förening
Spädbarnsfonden
Baby bag
Thanks to Innovation office KI!

Cooperation agreement with FONUS