Questions and Answers: References are noted at the end of the document.

1. Could you speak to Skin-to-Skin Contact (SSC) and its use during painful procedures immediately after birth and in the first months of life?

**Dr. Bergman’s Response:** I am not aware of studies regarding SSC immediately after birth, but for slightly older neonates it is profoundly effective.\(^1\)\(^-\)\(^3\) Having said that, I believe we must provide SSC for procedures immediately after birth, and somebody should study it.

2. I am enjoying the grand rounds lecture and have found myself wondering more about SSC with dad after you shared the photo of the non-lactating (comparable to the male chest) and lactating chests, one being 32 degrees and the other being 37 degrees. Should we be concerned that if dad does skin-to-skin shortly after baby is born that dad will not be able to maintain baby’s temperature adequately? I assume it won’t be as good as mom, but should we monitor the newborn’s temperature more frequently if dad is the one doing skin-to-skin? Any additional insight on this matter is appreciated.

**Dr. Bergman’s Response:** Dad can adequately control their baby’s temperature, and there is no need to monitor the baby.\(^4\)\(^-\)\(^6\) Ludington found higher temperatures with dad and Maastrup [found] lower temperatures, but all within normal healthy limits. For very small babies, there is evidence that mother is better, but father should do SSC when mother cannot.

**Denise Barbier’s Response:** I agree with Dr. Bergman’s response. This would make a great quality improvement project, especially if there are physicians or staff that may have some concerns with infant temperatures with dad. The project could document infant temperatures more frequently for a small number of patients and collect data on infant weight, gestational age, and respiratory and medical status.

3. Is there any literature that shows a relationship between immediate/delayed skin-to-skin contact and rates of postpartum depression? I’m curious to know if there is any evidence showing that having the opportunity for immediate SSC decreases postpartum depression rates in moms.

**Dr. Bergman’s Response:** See references from Brazil\(^7\) and Canada.\(^8\)
4. This seems like it goes beyond skin-to-skin. If babies have nurturing parents, whether or not they are breastfed, wouldn't they still receive that same buffering protection? So much of the benefit to the baby comes from skin-to-skin. Would there be similar positive effects with bottle feeding?

**Dr. Berman's Response:** Absolutely, for babies that cannot or may not breastfeed, we advise giving twice as much skin-to-skin contact. Immediate and early place of care is SSC, after a while the baby indicates he/she has had enough, and then it should be carried in a sling.

5. I'm so impressed with the program that was put together in Kentucky. They did a fantastic job. Is the CD available for purchase?

**Denise Barbier's Response:** Thank you! I am working to make the “Jumping Into Kangaroo Care” program available soon.

6. In the U.S., are there good resources available to make this process evidence-based? Also, any literature available to link the ACEs (Adverse Childhood Experiences) as traumatic/toxic environments' effects on the mother/infant experience.

**Dr. Bergman’s Response:** Susan Ludington maintains a complete Kangaroo Care (KC) bibliography, available by contacting the USIKC (www.kangaroocareusa.org); also with 120 tables with specific outcomes, available on my website, which is down right now (www.skintoskincontact.com under references). I am not aware of any overlap with the ACEs study; not sure how much that study identified NICU care as an adverse event, as we now should.

**Denise Barbier’s Response:** The 2018 KC bibliography is available for download at the website for the United States Institute for Kangaroo Care. I suggest you look at Mary Coughlin’s resource guide.

7. I so appreciated Denise’s candid remarks. I can relate to all of that. Nobody ever says it. Now it makes me feel better.

**Denise Barbier’s Response:** It is important to identify the exact hurdles faced when trying to implement a change in practice to improve patient outcomes.

8. Does The Joint Commission (TJC) consider kangaroo care as a best practice or protocol?

**Denise Barbier's Response:** I am not aware of any TJC recommendations for STS or KC. However, the TJC does include the measurement of exclusive breastfeeding as part of the 2010 Perinatal Care Core measures; refer to the 2013 toolkit.

Also, the list of health professional organizations that recommend immediate STS after delivery is important to have when working with healthcare providers and hospital leadership. Here is a partial list:

Academy of Breastfeeding Medicine (ABM)
American Academy of Pediatrics (AAP)
American Academy of Family Physicians (AAFP)
American College of Obstetricians and Gynecologists (ACOG)
Association of Women's Health, Obstetric and Neonatal Nurses (AWHONN)
Centers for Disease Control and Prevention (CDC)
National Perinatal Association (see Guidelines for the Care of the Late Preterm Infant)
Neonatal Resuscitation Program, developed by the American Heart Association and American Academy of Pediatrics
Pan American Health Organization (PAHO)
United States Institute for Kangaroo Care (USIKC)
World Health Organization (WHO)

9. I would like to know more about SSC for Cesarean sections (C-sections).

Dr. Bergman’s Response: We should all do skin-to-skin immediately after C-sections and be prepared to do it in different ways. It is best if directly on mother while she is being operated on after delivery. The baby usually latches very quickly and there is less bleeding and better anesthetic recovery. But for any problems, the father or another woman from the family should do SSC\textsuperscript{13-15} and as soon as feasible, the baby should be returned to mother.

Denise Barbier’s Response: If your facility has not done any SSC with C-sections, sometimes it helps to begin with small steps. We started with placing babies in SSC in the Recovery Room with mom or dad. The next step was SSC with dad in the Operating Room. Once the staff felt comfortable, we were able to purchase clear drapes and do SSC correctly by passing the baby through the clear drape and onto mother’s chest. I would download the 2018 KC bibliography;\textsuperscript{9} see my answer to Question 6. Also, see an article on C-sections with SSC.\textsuperscript{16}

10. Is there a high probability of disease among infants with toxic stress?

Dr. Bergman’s Response: Yes, there is. We need, however, to define ‘high probability’, and also, differentiate ‘disease’ into physical, psychological and social, with different degrees of severity. What we are seeing now is an "expansion of interest from major disabilities to high prevalence/low severity dysfunctions."\textsuperscript{17}

11. I overheard a few weeks ago that Congress trying to pass new law to ban breastfeeding. I don't have any more details, but is there any truth to this?

Denise Barbier’s Response: I am not aware of this.
12. As a level 4 NICU nurse, I'm curious how do you suggest incorporating SSC with ELBW on higher levels of respiratory support while at the same time being able to maintain a midline position for baby within the first two weeks.

**Dr. Bergman’s Response**: We routinely do ventilation while in SSC. For the separated infant, midline MIGHT HAVE some benefit. I have not seen good randomized controlled trials in support, however, for the infant in SSC, there is physiological regulation, and we have not seen problems when turning the head side to side. The upright position probably compensates.

13. What is the correct way to place the baby immediately after birth and how can we get the healthcare providers to know this strategy in order to talk and help patients. A lot the speakers spoke about different methods so which is the more preferred one? Anything in regards to C-sections?

**Dr. Bergman’s Response**: C-sections are mentioned above. For a healthy term baby, some general principles apply, but there is no “one correct” or preferred way. The baby should be upright, prone, stably fixed or planted on the mother’s chest. For unstable babies, they should also be at a 40- to 50-degree angle, airway protected, with their legs flexed in the fetal position, so that they can breathe abdominally (diaphragmatically) without hindrance.

**Denise Barbier’s Response**: I agree with Dr. Bergman. Also, see my answer to Question 9.

14. How does SSC cause a mechanism that increases the number of physical receptors in the infant’s brain?

**Dr. Bergman’s Response**: The receptors are for cortisol, and they take the cortisol out of the bloodstream. There is a gene for cortisol receptors to be made (expressed), and this gene is controlled by switches (epigenes). When those switches feel that the environment is a safe one, they decide that having lots of cortisol is unnecessary, so they turn on the receptors that take the cortisol out of the bloodstream. When they feel it is unsafe, they decide to keep higher cortisol, and switch off the gene that makes the receptors. The epigenes make this decision in the first days and weeks, once they have been switched on or off, they stay like that for life.¹⁸⁻²⁰
References:


6. Shorey SP, MSc,RN,RM(AssistantProfessor)a,n,, He Hong-Gu P, MD,RN(AssociateProfessor)a,, Skin-to-skin contact by fathers and the impact on infant and paternal outcomes: an integrative review. *Midwifery* 40(2016)207–217 2016; **40**: 2017-217.


