

19	Am J Public Health 1994 Jan; 84(1): 89-97.	Infant feeding policies in maternity wards and their effect on breast-feeding success: an analytical overview	<p>chest between the breasts. The mother may wear a hospital gown that opens in front and the baby is placed inside the gown so that only the head is exposed. What the mother wears and how the baby is kept warm and what is placed across the baby's back may vary; what is most important is that the mother and baby are in direct ventral to ventral skin-to-skin contact. The duration of SSC will be examined to investigate any 'dose-response' relationship. Although SSC can be intermittent, frequent separation may physiologically destabilize less vigorous infants. Despite small reforms, depending on the institution, usual hospital care continues to include only a glimpse of the baby immediately after birth, or may involve the mother holding the swaddled infant for up to an hour. Types of outcome measures a) breastfeeding status (exclusivity) and duration; b) breastfeeding problems such as breast engorgement, infant latch-on difficulties, sore nipples; c) breastmilk maturation; d) maternal bonding/ attachment behaviours ( affectionate, proximity-maintaining and care-taking behaviours); e) maternal psychological changes after SSC (for example state anxiety, self-efficacy, parenting competence); f) changes in infant physiological parameters during and after SSC (for example temperature, respiratory rate, heart rate, blood glucose); g) behavioral changes in the infant during and after SSC (for example crying and grimacing); h) any other outcomes (hospital stay, economic data, longer term morbidity).</p> <p><b>OBJECTIVES:</b> The purpose of this review is to examine the plausibility of an ausal relationship between maternity ward practices and lactation success. <b>METHODS:</b> Studies were located with MEDLINE, from our personal files, and by contacting researchers working in this field. Of the 65 studies originally reviewed, 18 met our inclusion criteria (i.e., hospital-based intervention, experimental design with randomization procedures, or quasi-experimental design with adequate documentation). <b>RESULTS:</b> Meta-analysis indicated that commercial discharge packs had an adverse effect on lactation performance. The impact of early mother-infant contact on lactation success was unclear. Rooming-in and breast-feeding guidance in a rooming-in context had a beneficial impact on breast-feeding among primiparae. Breast-feeding on demand was positively associated with lactation success. In-hospital formula supplementation of 48 mL per day was not associated with poor breast-feeding performance. <b>CONCLUSIONS:</b> Hospital-based breast-feeding interventions can have a beneficial effect on lactation success, particularly among primiparous women.</p> <p>18 研究 (RCT) を収集しメタアナリシスをした結果、つぎのことが明らかになった。早期母乳接触の母乳育児への効果ははっきりしない。母乳同室の場合と母乳同室での母乳</p>	Meta-Analysis
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20	J Nurs Res 2002; 10(2): 129-42.	A randomized controlled trial of early kangaroo care for preterm infants: effects on temperature, weight, behavior, and acuity	Chwo MJ, Anderson GC, Good M, Dowling DA, Shiau SH, Chu DM	<p>育児指導を併用する場合は、初産婦において母乳育児に好影響をもたらす。自律授乳は母乳育児確立に効果がある。入院時に48 mL/日の人工乳を足すことは母乳育児率の低下と関係はない。人工乳メーカーの退院時バックは母乳育児確立に悪影響がある。</p> <p>Kangaroo care (KC) has been the intervention for preterm infants in numerous published studies. However, most well designed studies to date have used a one-group repeated measure design. This methodology is not as definitive as an experimental design. Because of the absence of a comparable control group, change between pretest and posttest may be due to any other environmental variables or normal variation of subjects (Kirk, 1995). This randomized controlled trial (RCT) was done to test the hypotheses that KC infants would have higher mean tympanic temperatures, less weight loss, more optimal behavioral states, and lower acuity (length of stay). Thirty-four eligible mother-infant dyads were randomly assigned to the KC or the control group by computerized minimization on the day following birth. Stratification variables included infant gender, birth weight, delivery method, and parity. KC infants compared to control infants had higher mean tympanic temperature (37.3 degrees C vs. 37.0 degrees C), more quiet sleep (62% vs. 22%), and less crying (2% vs. 6%) all at p&lt;.000. No significant difference was found for weight loss and acuity (length of stay). These findings can be used for evidence-based nursing practice in Taiwan. With the knowledge attained from this RCT, nurses can educate and motivate mothers to keep their stable preterm infants warm by skin-to-skin contact inside their clothing, thereby encouraging self-regulatory feeding.</p> <p>早産児でのカンガルーケアの効果をみるために、34組の母子をカンガルーケア群と対照に無作為に割付けた。カンガルーケア群のほうが、体温は高く、泣くことは少なく、よく眠るといふ点で有意差があった。体重減少、入院間には有意差がなかった。</p>	RCT
21	Horm Res 2002; 57(1-2): 22-6.	Longitudinal assessment of pituitary-thyroid axis and adrenal function in preterm infants raised by 'kangaroo mother care'	Weller A, Rozin A, Goldstein A, Charpak N, Ruiz-Pelaez JG, Figueroa de Calume Z, Charpak Y, Sack J	<p>OBJECTIVE: To assess whether complete kangaroo mother care (KMC), a skin-to-skin contact intervention, would affect longitudinal/developmental patterns of hormonal change. METHOD: An open randomized controlled trial was conducted in a large tertiary care hospital, comparing KMC and traditional care for newborn infants weighing less than 2,001 g. Eighty-seven healthy preterm (&lt;37 weeks gestational age) infants from this study provided three blood-spot samples on filter paper: at randomization (postnatal age 1-5 days), 2 weeks later, and at calculated term (41 weeks gestational age). They met a number of additional inclusion criteria including discharge from the hospital within the first postnatal week. The levels of</p>	RCT

22	Indian J Pediatr 2001 Nov; 68(11): 1019-23.	Kangaroo Mother Care in very low birth weight infants	Ramanathan K, Paul VK, Deorari AK, Taneja U, George G	<p>17alpha-hydroxy-progesterone (17-OHP), thyroxine-stimulating hormone (TSH) and thyroxine (T(4)) were assessed by radioimmunoassay. Birth weight (&lt;1,800 or &gt; or =1,800 g) and prenatal maternal corticosteroid treatment were taken into account in the analysis. INTERVENTIONS: Complete KMC includes early discharge, positioning the infant on the parent's chest in an upright position, 24 h/day in skin-to-skin contact, and breast-feeding. In the traditional care group, infants were discharged according to routine hospital practice. RESULTS: Levels of 17-OHP and TSH decreased significantly from eligibility to calculated term while T(4) levels did not change significantly over time. Most importantly, overall, treatment (KMC) did not interact with the pattern of physiological change. CONCLUSIONS: Maturation of the pituitary-thyroid axis and adrenal function is apparently not compromised by KMC, at least in healthy preterm infants. Copyright 2002 S. Karger AG, Basel</p> <p>37週未満の早産児で2001gより小さい児を対象にして、カ ンガルーケアと従来のケアを比較した。1-5日後、2週後、41 週後に評価。カンガルーケアでは、17-OHP、TSHは有意に 低下したが、T(4)値は変化しなかった。</p> <p>OBJECTIVE: This study was conducted (i) to study through a randomized control trial the effect of Kangaroo Mother Care (KMC) on breast feeding rates, weight gain and length of hospitalization of very low birth neonates and (ii) to assess the acceptability of Kangaroo Mother Care by nurses and mothers. METHODS: Babies whose birth weight was less than 1500 Grams were included in the study once they were stable. The effect of Kangaroo Mother Care on breast feeding rates, weight gain and length of hospitalization of very low birth weight neonates was studied through a randomized control trial in 28 neonates. The Kangaroo group (n = 14) was subjected to Kangaroo Mother Care of at least 4 hours per day in not more than 3 sittings. The babies received Kangaroo Care after shifting out from NICU and at home. The control group (n = 14) received only standard care (incubator or open care system). Attitude of mothers and nurses towards KMC was assessed on Day 3 1 and on day 7 1 after starting Kangaroo Care in a questionnaire using Likert's scale. RESULTS: The results of the clinical trial reveal that the neonates in the KMC group demonstrated better weight gain after the first week of life (15.9 4.5 gm/day vs. 10.6 4.5 gm/day in the KMC group and control group respectively p &lt; 0.05) and earlier hospital discharge (27.2 7 vs. 34.6 7 days in KMC and control group respectively, p &lt; 0.05). The number of mothers exclusively breastfeeding their babies at 6 week follow-up was double in the KMC group than in the control group (12/14 vs. 6/14) (p &lt;</p>	RCT
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23	Pediatrics 2001; 108(5): 1072-9.	A randomized, controlled trial of kangaroo mother care: results of follow-up at 1 year of corrected age	Charpak N, Ruiz-Pelaez JG, Figueroa de C Z, Charpak Y	<p>0.05). CONCLUSION: KMC managed babies had better weight gain, earlier hospital discharge and, more impressively, higher exclusive breast-feeding rates. KMC is an excellent adjunct to the routine preterm care in a nursery.</p> <p>カンガルーケア群 (14人) と標準ケア群 (14人) で比較した。カンガルーケア群のほうが、体重増加、早期退院、母乳育児率についてよかった。</p> <p>OBJECTIVE: To assess the effectiveness and safety of Kangaroo Mother Care (KMC) for infants of low birth weight. METHODS: An open, randomized, controlled trial of a Colombian social security referral hospital was conducted. A total of 1084 consecutive infants who were born at &lt;math&gt;\leq 2000\text{ g}&lt;/math&gt; were followed, and 746 newborns were randomized when eligible for minimal care, with 382 to KMC and 364 to "traditional" care. Information on vital status was available for 693 infants (93%) at 12 months of corrected age. KMC consisted of skin-to-skin contact on the mother's chest 24 hours/day, nearly exclusive breastfeeding, and early discharge, with close ambulatory monitoring. Control infants remained in incubators until the usual discharge criteria were met. Both groups were followed at term and at 3, 6, 9, and 12 months of corrected age. The main outcomes measured were morbidity, mortality, growth, development, breastfeeding, hospital stay, and sequelae. RESULTS: Baseline variables were evenly distributed, except for weight at recruitment (KMC: 1678 g; control participants: 1713 g). The risk for death was lower among infants who were given KMC, although the difference was not significant (KMC: 11 [3.1%] of 339; control participants: 19 [5.5%] of 324; relative risk: 0.57; 95% confidence interval: 0.17-1.18). The growth index of head circumference was statistically significantly greater in the group given KMC, but the developmental indices of the 2 groups were similar. Infants who weighed &lt;math&gt;\leq 1500\text{ g}&lt;/math&gt; at birth and were given KMC spent less time in the hospital than those who were given standard care. The number of infections was similar in the 2 groups, but the severity was less among infants who received KMC. More of these infants were breastfed until 3 months of corrected age. CONCLUSION: These results support earlier findings of the beneficial effects of KMC on mortality and growth. Use of this technique would humanize the practice of neonatology, promote breastfeeding, and shorten the neonatal hospital stay without compromising survival, growth, or development.</p> <p>2000 g 以下の低出生体重児をカンガルーケア (382人) と従来のケア (364人) に分けて比較した結果、頭圍成長と3ヶ月後の母乳育児率で有意な差があったが、死亡率に差はなかった。</p>	RCT
24	Biol Res Nurs 2000;2(1):	Kangaroo care compared to Ludington-Hoe SM,	Many preterm infants cared for in incubators do not experience	<p>RCT</p>	

60-73.	incubators in maintaining body warmth in preterm infants.	Nguyen N, Swinith JY, Satyshur RD	<p>Kangaroo Care (KC), skin-to-skin contact with their mothers, due to fear of body heat loss when being held outside the incubator. A randomized clinical trial of 16 KC and 13 control infants using a pretest-test-posttest design of three consecutive interfeeding intervals of 2.5 to 3.0 h duration each was conducted over 1 day. Infant abdominal and toe temperatures were measured in and out of the incubator; maternal breast temperature was measured during KC. Repeated measures ANOVA showed no change in abdominal temperature across all periods and between groups. Toe temperatures were significantly higher during KC than incubator periods, and maternal breast temperature met each infant's neutral thermal zone requirements within 5 min of onset of KC. Preterm infants similar to those studied here will maintain body warmth with up to 3 h of KC.</p> <p>カンガルーケア (16人) と保育器 (13人) で児の腹部と足先の温度を測定。腹部温度は2群間に差は出なかったが、足先温度はカンガルーケアのほうが有意に上昇した。</p>	RCT
25	Separation distress call in the human neonate in the absence of maternal body contact	Christensson K, Cabrera T, E, Christensson K, Uvnas-Moberg K, Winberg J	<p>Few studies have used the baby's cry as a means of evaluating the quality of neonatal care. In this randomized trial the newborn's cry was registered during the first 90 min after birth when infants were cared for either: (a) skin-to-skin with the mother; (b) in a cot; or (c) in a cot for the first 45 min of the 90-min observation period and then skin-to-skin with the mother. The results suggested that human infants recognize physical separation from their mothers and start to cry in pulses. Crying stops at reunion. The observed postnatal cry may be a human counterpart to the "separation distress call" which is a general phenomenon among several mammalian species, and serves to restore proximity to the mother. Our results suggest that in human newborns this cry is not dependent on earlier social experience and may be a genetically encoded reaction to separation. The findings are compatible with the opinion that the most appropriate position of the healthy full-term newborn baby after birth is in close body contact with the mother.</p> <p>健康な満期産の新生児をつぎの3群に割り付けた。(1)90分間母児の肌と肌での接触をする(2)90分間cotに寝かせる(3)45分間cotに寝かせたあと、45分間肌と肌での接触をする。出生後90分間、児の泣く状態を観察して記録した。肌と肌での接触は、児の泣く率を低下させた。</p>	RCT
26	The initiation of lactation: the effect of early versus delayed contact for suckling on milk intake in the first week post-partum. A study in Chiang Mai, Northern Thailand	Woolridge MW, Greasley V, Silpisornkosol S	<p>The effect of reducing the length of routine mother/infant separation following delivery on milk intake in the first week of life was examined prospectively in 22 term infants in Chiang Mai, Northern Thailand. Infants were randomly assigned to two groups: a late contact group (control) who followed routine hospital policy (mean separation between mother and baby 25.1 h), and an early contact group (experimental) in which mother and baby were re-united as soon as possible following standard</p>	RCT

27	Acta Paediatr Scand Suppl 1985; 316: 3-14.	Extra early physical contact and aspects of the early mother-infant relationship	Taylor PM, Taylor FH, Campbell SB, Maloni JA, Cannon M	<p>clinical observations (mean separation after delivery of 3.6 h). Despite a difference of 22.4 in the mean age at which babies in the two groups were first suckled, no experimental difference was found in milk volume transfer over post-partum days 2-5 determined by test weighing at a morning feed with an integrating electronic balance. An observational study was performed concurrently, which showed that early contact group mothers were likely to have given 8 additional breast feeds during the extra 21.5 h they had with their infant.</p> <p>22例の満期産児を早期接触群(出生後できるだけ早く母乳をいっしょにする、平均3.6時間後)と従来接触群(平均25.1時間母乳が離れていた)に振り分け、産後1週間における乳汁分泌量への影響を比較した。乳汁分泌量は朝の授乳量を測定した。産後2-5日以降の乳汁分泌量は両群で差はなかった。早期接触群では従来群の母乳が離れていた25.1時間間に8回多く授乳していた。</p> <p>We tested the hypothesis that extra early physical contact between mother and infant enhances aspects of their early relationship. Healthy, middle-class mothers and their healthy, firstborn, singleton infants delivered vaginally at full-term were randomly assigned to receive either regular contact (RC; N = 39) or extra early physical contact (EC; N = 39) following delivery. RC infants remained in cribs beside their mothers' beds, while EC infants and mothers had a mean of 46 min of physical contact in the recovery room. There was no difference between EC and RC subjects for the following outcome measures: amount of time mothers chose to have infants with them during the postpartum hospital stay; quality of mother-infant interaction at two days and one month; concern mothers expressed for the infant at one month; mothers' perception of their postpartum adjustment; mothers' perception of the infant at two days and one month, and of the infant's temperament at eight months; and extent of mothers' assisting with and soothing the child during a physical examination at 13 months. EC children cried significantly less during the examination at 13 months. These findings do not support the hypothesis that extra early physical contact between mother and infant enhances their relationship.</p> <p>早期接触群(39例、回復室で出生後平均46分間身体接触)と従来接触群(39例、母親の横においた cribsの中に置く)について産後13ヶ月まで追跡した。早期接触群のほうに有意に泣き方が少なかったが、たとえば以下の評価項目では差がなかった。入院中に新生児を抱く時間、2日後と1ヶ月後の母乳関係の質、1ヶ月後の母親の子供への関心の示し方など。</p>	RCT
28	Acta Paediatr Scand Suppl 1985; 316: 15-22.	Extra early mother-infant contact and duration of breast-feeding	Taylor PM, Maloni JA, Taylor FH,	<p>We tested the hypothesis that extra early physical contact between mother and infant is associated with prolonged</p>	RCT

29	Pediatrics 1983; 72(1):79-83.	Early contact, social support, and mother-infant bonding	Campbell SB	<p>breast-feeding. Healthy, advantaged mothers and their healthy, mature, vaginally-delivered, firstborn infants were randomly assigned to receive either regular contact (N = 39) or extra early contact beginning approximately one-half hour after delivery (N = 39). Fifty-three (68%) of the 78 infants were breast-fed. Age at which complete weaning occurred was known for 50 (94%) of the 53 infants. Prolonged breast-feeding was not significantly associated with extra contact. Suckling during extra early contact was associated with greater incidence of breast-feeding at two months (p less than 0.001) and three, four and five months (0.10 greater than p greater than 0.05) for male and female infants combined.</p> <p>早期接触群 (39 例、出生後約 90 分後に母児をいっしょにする) と従来接触群 (39 例) を追跡した。78 人中 53 人が母乳育児をした。この 53 人については離乳時期を特定できた。母乳育児期間については両群間で有意差はなかった。2 ヶ月後の母乳育児率は早期接触群のほうが有意に高かった (P&lt;0.001)。</p>	<p>RCT</p> <p>A study was designed to explore further the hypothesis that a period of close contact between mother and infant immediately after birth facilitates the establishment of a close bond. The study investigated whether the effects of extra contact interact with other variables present in the labor and delivery situation and with the extent of social support available to the mother. Two sets of procedures for the immediate postpartum period were established and mothers were randomly assigned to one of these conditions. Twenty-nine mothers experienced extracontact procedures in which the baby was placed on the mother's abdomen for 1 hour. Thirty mothers received routine care procedures in which the baby was shown to the mother and then taken to the nursery. Observations of maternal behavior during a feeding were made two days after birth by an observer blind to the randomization status of the mother. The mothers who received extra contact exhibited significantly more affectionate behavior toward their infants than did the mothers who received routine care. The extracontact treatment produced more affectionate behaviors in the mothers who had less social support than in those who had more social support. The extra contact was equally effective for multiparous and primiparous mothers. Mothers of female infants exhibited more affectionate behavior to their infants regardless of which postpartum procedures the mothers had experienced.</p> <p>早期接触群 (29 例、出生後 1 時間、児を母親のお腹の上に置く) と従来接触群 (30 例、出生後児を母親に会わせた後、新生児室である) について産後 2 日目に授乳の様子を観察した。早期接触群の母親のほうが児への反応がよかつた (affectionate だった)。</p>
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30	Early Hum Dev 1982;6 (2): 197-204.	The effect of early contact on maternal perception of infant behavior	Craig S, Tyson JE, Samson J, Lasky RE	<p>The effect of extra maternal-infant contact during the first postpartum hour on maternal perception of infant behavior one month after delivery was measured by the Broussard Neonatal Perception Inventories and the attachment questions of Klaus and colleagues. All mothers were indigent primiparas who vaginally delivered normal, term infants. 60 mother-infant dyads were randomly assigned to either an extra contact or routine contact group. 49 mothers were available 1 month later for home visits. Scores on the Neonatal Perception Inventories were not significantly affected by either degree of contact or the sex of the child. There was also no difference between contact groups in the maternal response to the attachment questions. Infant behaviors recorded by 24 mothers during the 4 days following home visits were similar in the 2 contact groups. Mothers reported significantly more negative behaviors for female than for male infants. Any effects of extra contact during the first hour after birth on maternal-infant interaction are unlikely to result from changes in maternal perception of infant behavior.</p> <p>満期で経産分娩で生まれた60人を早期接触群(出生後1時間間母児をいっしょにする)と従来接触群に分け、1ヶ月後に家庭訪問した。母親の児への愛着形成や、児の行動に對する母親の反応等において、両群に差はなかった。</p>	RCT
31	Nurs Res 1982; 31(2): 73-8	Maternal attachment behavior and the mother's self-concept: the effect of early skin-to-skin contact	Curry MA	<p>The problem was to determine the effect of skin-to-skin contact between mother and infant during the first hour following delivery on later maternal attachment behavior and self concept. Twenty primiparous women were randomly assigned skin-to-skin contact with their infant during the first hour after birth. There were no significant differences in 36-hour or three-month attachment behaviors or in prenatal or three month self-concept scores. For most mothers, first time motherhood appeared to have a positive effect on their self-concepts.</p> <p>20人の初産婦を肌と肌での接触群(出生後1時間)と従来接触群に分け、36時間後と3ヶ月後に母性的愛着行動と自己概念について調べたところ、両群に差はなかった。</p> <p>母乳栄養継続の為のケア、1)妊娠初期から母乳栄養や母乳同室の利点の強調、2)出生直後30分の刷り込み、3)母親の希望による産後第一歩行以降の授乳、4)3日目よりの母乳同室を場合により産褥1日目より可能とする、は退院時の母乳哺育率増加に効果がある。</p>	RCT
32	兵庫県立尼崎病院年報2001; 12: 131-132.	母乳栄養継続のためのケアの見直し 入院中の母乳哺育率の変化	常松恵子, 今村さおり, 吉川哉子, 波崎由美子, 石谷明子	<p>早期産となりカンガルーケアを3回以上実施した母親20名の早期産体験の癒しと母親の愛着を、カンガルーケア介入前、2週間後、退院前で比較した。その結果、早期産体験の癒しの下位尺度「辛さのとの解放」と「現実の受け止め」は、2週間後と退院前は介入前より有意に高かった。一方、「自己の確かさ」は退院前のみ介入前より有意に高かった。母親の愛着は、いずれの時期にも有意差</p>	前後比較研究
33	日本看護科学会誌2002; 22(1): 13-22.	カンガルーケアを実施した母親の愛着と早期産体験の癒し	中島登美子		

34	日本看護学会誌2001; 10(1): 43-49.	早期産の母親の子どもに対する愛着的感情と抱っこの比較から院前の比較から	中島登美子	<p>がみられなかった。早期産体験の癒しに関連する気分では、「抑鬱落ち込み」は2週間後が介入前より有意に低く、「活力」は入院前が介入後より有意に高かった。面接で辛く感じる必要を取ったことと、カンガルーケアによる早期産体験を肯定的に意味づけられていた。</p> <p>早期産となりカンガルーケアを実施した母親10名と抱っこのケアを実施した母親10名の計20名を対象とし、子どもとの愛着的感情を測定する対児感情評定尺度と、気分を測定するProfile Mood Statesを使用した。その結果、子どもとの愛着的感情と気分はケアによる差異がなく、これが示唆された。また、両ケアに共通していたのは、母親の愛着的感情とネガティブな気分は負の関連にあり、母親の愛着的感情を高めると考えられた。</p>
				比較研究

## XVIII. ルーチンに新生児室でケアする

### 1. The Cochrane Library の結論

Cochrane Review なし

### 2. 世界保健機関 (WHO) の勧告

なし

### 3. 検討したデータベース・文献

1. The Cochrane Library 2002 issue 4
2. WHOの59カ条 お産のケア実践ガイド1996 農文協 (1997訳)
3. 医学中央雑誌
4. 産婦人科ガイドラインUpdate メジカルビュー社 2002
5. Williams Obstetrics 21th edition 2001
6. 産婦人科医事紛争 知人社 2001
7. PubMed

### 4. 検討結果

#### (1) 結論

複数の RCT に比較的共通して得られている結果は、母児同室が母乳育児促進に対して効果があるというものである。その他、母児関係への影響等については効果が認められるという結果と認められないという結果が併存している現状であるので、母児関係への効果に関してはまだ明らかではない。しかし少なくとも、母児同室より新生児室でのケアのほうが優れているという根拠はない。

#### (2) 根拠となる報告の質

メタアナリシス	なし
無作為化介入試験	海外7論文 <sup>36)-41)</sup> 、日本1論文 <sup>32)</sup> → (参考文献Table参照)
計画された介入試験 (非無作為化)	海外1論文 <sup>42)</sup> → (参考文献Table参照)
記述研究	コホート研究1論文 <sup>43)</sup> → (参考文献Table参照)
比較研究	7論文 <sup>44)-50)</sup> (日本) → (参考文献Table参照)

#### (3) 日本におけるデータの質

メタアナリシス	なし
無作為化介入試験	1論文
計画された介入試験 (非無作為化)	なし
記述研究	比較研究 7論文

#### (4) 日本における利用状況 (推定を含む)

日本の産科施設では新生児室でのケアが一般的に行われている。

#### (5) 日本における教科書記載の有無

なし

#### (6) 日本におけるガイドラインなどでの採用の有無

なし

#### (7) 選択された特別なグループに対する有効性の検討

なし

#### (8) 医事紛争裁判における評価 (推定を含む)

なし

### 5. 担当者氏名: 三砂ちづる・八重ゆかり

No	Journal	Title	Authors	Abstract	PT
35	Early Human Development 1992; 31 (1): 25-40.	Effect of the maternity ward system on the lactation success of low-income urban Mexican women	Perez-Escamilla R, Segura-Millan S, Poflitt E, Dewey KG	We compared the lactation performance of 165 healthy mothers who planned to breastfeed and gave birth by vaginal delivery, without complications to a healthy infant in either a nursery (NUR) (n = 58) or a rooming-in hospital, where formula supplementation was not allowed. In the rooming-in hospital, women were randomly assigned to a group that received breastfeeding guidance during the hospital stay (RIBFG) (n = 53) or to a control group (RI) (n = 54). Women were interviewed in the hospital and at 8, 70 and 135 days post-partum (pp). The groups were similar in socio-economic, demographic, anthropometric, previous breastfeeding experience and prenatal care variables. Non-parametric survival analyses adjusting for potential confounding factors show that breastfeeding guidance had a positive impact (P < or = 0.05) on breastfeeding duration among primiparous women who delivered in the rooming-in hospital. Among primiparae, the RI and RIBFG groups had higher (P < or = 0.05) full breastfeeding rates than the NUR group in the short term. In the longer term, only the difference between the RIBFG and the NUR group remained statistically significant. The maternity ward system did not have a statistically significant effect on the lactation performance of multiparae.	RCT
36	Nursing Research 1987; 36: 140-144.	Comparison of neonatal nighttime sleep-wake patterns in nursery vs rooming-in environments	Keefe MR	経産分娩をして母乳育児を希望している 165 人の母子をつぎの 3 群に分けた。(1)新生児室群 (2)母児同室にして母乳育児指導をする群 (3)母児同室群。産後 8、70、135 日めに母乳育児を継続しているかどうかを聞いた。初産婦の場合、短期結果 (8 日?) では、(1)と(2)、(1)と(3)の間で完全母乳育児率に差があったが、長期 (70 日、135 日?) では、(1)と(2)にのみ有意差があった。経産婦では、3 群の間で授乳方法の差は認められなかった。	RCT
37	Acta Paediatrica Scandinavica 1986; 159: 167.	The influence of "rooming-in" on breast feeding	Lind J and Jaderling J	なし	RCT
38	Die Medizinische Welt 1984; 35: 479-483.	Does rooming-in have an influence on the nursing frequency and performance in breast feeding?	Husstedt, W., Schmann, A, von T ne, J., and Oberheuser, F.	なし	RCT
39	Pediatrics 1980; 66 (2): 176-82.	Reduced incidence of parenting inadequacy following rooming-in	O'Connor S, Vietze PM, Sherrod KB, Sandler HM, Altemeier WA 3rd	Low-income mother-infant pairs were randomly assigned to rooming-in (N = 143) or to routine (N = 158) postpartum contact to determine whether rooming-in affects subsequent adequacy in parenting. At mean age 17 months, two rooming-in and ten control children had experienced inadequate parenting. One rooming-in and eight control children were hospitalized for these problems. One rooming-in and five control families were reported to Protective Services for mistreatment of the study child; five control and no rooming-in children were in the care of adults other	RCT

40	Pediatric Research 1979; PG336.	How does rooming-in enhance the mother-infant bond?	O'Connor S, Vietze P, Sherrod K, Sandler H, and Altemeier W	<p>than their parents at the time of data analysis. In this study, rooming-in correlated with fewer subsequent cases of parenting inadequacy.</p> <p>低所得者層の母児を母児同室群 (143 例) と従来ケア群 (158 例) に分け、産後平均 17 ケ月時点の母子関係を調べた。母児同室の 2 人に母子関係の障害があり、うち 1 人が入院した。従来ケア群の 10 人に母子関係障害があり、うち 5 人が入院した。母児同室は母子関係の悪化減少に関連している。</p> <p>なし</p>	RCT
41	Am J Orthopsychiatry 1973; 43: 783-788.	First mothers rooming-in with their newborns: its impact upon the mother.	Greenberg M, Rosenberg I, and Lind J	なし	RCT
42	Birth 1995; 22(4): 196-200; discussion 201-3.	Mothers touching newborns: a comparison of rooming-in versus minimal contact	Prodromidis M, Field T, Arendt R, Singer L, Yando R, Bendell D	<p>We compared the maternal behaviors of women who had extended and early contact (rooming-in) with their infants with those who had contact only during feedings. Thirty-one young, unmarried, predominantly black, lower- socioeconomic mothers and their infants were observed in the mother's hospital room for 15 minutes after a morning feeding approximately 18 hours after delivery. A time sample unit checklist was used to record each mother's behavior, looking, talking, and touching directed toward their infants and others, as well as watching television and talking on the telephone. Analyses of variance revealed that the rooming-in mothers looked at, talked to, and touched their infants more, watched less television, and talked less on the telephone than mothers with minimal contact with their infants. These findings suggest that increased postpartum contact with infants leads not only to more interaction, but also to more touching as well as touching in more intimate places (face and head), thus highlighting the value of rooming-in arrangements for mothers and infants.</p> <p>31 人の産婦 (未婚、黒人、低所得者層) で母児同室群と授乳中のみ母児と一緒にいる群とで母児間のコンタクトについて、分娩 18 時間後に朝の授乳後の 15 分間を観察した。同室群の母親のほうがより多く児を見たり、話しかけたり、触れたりしており、テレビをみる、電話をかけるということは少なかった。</p>	CCT
43	Salud Publica de Mexico 1997; 39: 110-6.	Mother-infant rooming-in and exclusive breast feeding	Flores-Huerta S, Cisneros-Silva I	<p>OBJECTIVE: To determine the influence of joined mother- child hospital lodging (JL) on the frequency of exclusive human lactation (EHL) from birth to four months of age. MATERIAL AND METHODS: Non-randomized cohort study performed at the lactation clinic of the "Luis Castelazo Ayala" Hospital of the Mexican Social Security Institute from January 1993 to October 1994 which included 178 healthy mother-child pairs (MCP) with term pregnancy. The jointly lodged group (JL) consisted of 90 MCP in which mothers received assessment for lactation; 88 MCP were lodged separately and no assessment was provided. Results were statistically analyzed to determine frequency and variable associations. RESULTS: Feeding was recorded as either EHL, powdered milk or both. Groups with or without JL were stratified by form of birth, either labor or Cesarean section. With the Mantel-Haenszel X<sup>2</sup> and</p>	Cohort

	<p>logarithmic range, differences were significant with <math>p &lt; 0.05</math>. During the study, global lactation was similar among groups. In the first month, EHL was higher in the JL group, 61 vs 42% independently of the form of birth (<math>p &lt; 0.05</math>). The only variable which influenced EHL was JL.</p> <p>CONCLUSIONS: Mother-child JL favours EHL during the first month post-partum.</p>		<p>母乳同室 (90 例) と母乳別室群 (88 例) について産後 1 ヶ月後の完全母乳育児率をみたところ、母乳同室群 61%、母乳別室群 42% であり有意差 (<math>p &lt; 0.05</math>) があった。</p>	<p>RCT</p>
32	<p>兵庫県立尼崎病院年報 2001; 12: 131-132.</p>	<p>母乳栄養継続のためのケア、1) 妊娠初期から母乳栄養や母乳同室の利点の強調、2) 出生直後 30 分の刷り込み、3) 母親の希望による産後第一歩行以降の授乳、4) 3 日目よりの母乳同室を場合により産褥 1 日目より可能とする、は退院時の母乳哺育率増加に効果がある。</p>	<p>常松恵子, 今村さおり, 吉川哉子, 波崎由美子, 石谷明子</p>	<p>比較研究</p>
44	<p>環境感染 2000; 15 (4): 291-294.</p>	<p>母子同室が新生児メチシリン耐性黄色ブドウ球菌院内感染に及ぼす影響</p>	<p>井原基公, 三田尾賢, 小滝照子, 重光昌信, 木村公重</p>	<p>比較研究</p>
45	<p>日本看護学会論文集 30 回母性看護号 2000; 72-74.</p>	<p>変則制母乳同室と母乳同室の育児不安の変化</p>	<p>宮田里美, 林智子, 城和子, 吉本, 石立, 島崎美由</p>	<p>比較研究</p>
46	<p>群馬大学医学部保健学科紀要 1999; 19: 71-76.</p>	<p>初産婦における母子同室の効果</p>	<p>伊東和子, 日暮眞</p>	<p>比較研究</p>
47	<p>母性衛生 1997; 38 (4): 421-432.</p>	<p>産科管理体制の違いが母乳育児に及ぼす影響の検討</p>	<p>佐々木綾子, 中村圭佐</p>	<p>比較研究</p>
48	<p>茨城県母性衛生学会誌 1996; 16: 11-14.</p>	<p>母乳同室が母親の育児への適応に及ぼす影響</p>	<p>小浜和子</p>	<p>比較研究</p>



## XIX. 定時に授乳する

1. The Cochrane Libraryの結論(ただし1994.2.2最終改定。その後このレビュー内容は、現在プロトコル準備中の新しいレビュー「The effect of the timing of feedings on the establishment of breastfeeding」に含まれる予定になっている。)

(A) 定時授乳(4時間おき)と(B) 頻回授乳(2または3時間おき、あるいは欲しがったとき)の比較の結果。3RCTの結果によるが、方法論的に問題のある研究も含まれる。

評価項目からは(B)のほうが良いという結果が出た。評価項目とRelative Risk(95%CI)はつぎのとおり。

産後4-6週までに母乳育児を中止する危険	1.53(1.08, 2.05)
乳首の痛みで母乳育児を中止する危険	2.12(1.22, 3.68)
乳房緊満になる	2.01(1.25, 3.21)
人工乳の必要性を増加させる危険	3.14(1.24, 8.00)

産後数日間の4時間おきの定時授乳には多くの不利益があると思われる。より頻回に、また欲しがるときに授乳することは、授乳に関連した不都合を軽減し、母乳育児期間を長引かせる効果に関連がある。

### 2. 世界保健機関(WHO)の勧告

1. 明らかに有効で役に立つ、推奨されるべきこと: 母親と赤ちゃんが早期に肌と肌を触れ合って接触し、WHOの母乳育児のためのガイドラインに添って、産後1時間以内に授乳を開始できるようにサポートをすること

2. 「母乳育児を成功させるための10か条」(WHOとユニセフ共同宣言、1991年)

3. 赤ちゃんが欲しがるときはいつでもお母さんが母乳を飲ませてあげられるようにしましょう。

### 3. 検討したデータベース・文献

1. The Cochrane Library 2002 issue 4, 2001 issue 4
2. WHOの59カ条 お産のケア実践ガイド1996 農文協(1997訳)
3. 医学中央雑誌
4. 産婦人科ガイドラインUpdate メジカルビュー社 2002
5. Williams Obstetrics 21th edition 2001
6. 産婦人科医事紛争 知人社 2001
7. PubMed

### 4. 検討結果

#### (1) 結論

定時授乳のメリットを支持する根拠はなく、むしろ不都合が生じる可能性を示唆する研究結果がある。また、授乳間制限をせず、ほしがるときに授乳したほうが良い結果が得られるとの根拠は、確定的なものではないが、現段階ではほしがるときに与える頻回授乳が妥当性のある授乳方法である。

#### (2) 根拠となる報告の質

メタアナリシス

The Cochrane Review(CD000090 1994.2.2)<sup>14)</sup>  
→(参考文献Table参照)

無作為化介入試験

1994年以降にRCTなし

計画された介入試験(非無作為化)

1994年以降にCCTなし

記述研究

比較研究2論文<sup>15)16)</sup>(日本) →(参考文献Table参照)  
症例集積研究(日本)

#### (3) 日本におけるデータの質

メタアナリシス

なし

無作為化介入試験

なし

計画された介入試験(非無作為化)

なし

記述研究

比較研究2論文  
症例集積研究

#### (4) 日本における利用状況(推定を含む)

一部の施設では、定時授乳間隔や1回授乳時間を数分から10分以内に制限することを勧めることが

ある。

(5) 日本における教科書記載の有無

あり

1. 今日の小児治療指針, 医学書院, 2000

成熟新生児の栄養: 出生直後より好きなだけ授乳させることでほとんどの場合母乳栄養が確立する。(中略)最近では、母乳栄養を中心とした育児をできるだけ実施するために、WHOとユニセフが発表した「母乳育児を成功させるための10か条」を取り入れる施設が増加している。

2. 臨床助産婦必携 生命と文化をふまえた支援, 医学書院, 2000

授乳の開始: 産褥初期は乳汁分泌量も少なく、欲しいときに欲しいだけ与える自律授乳を行う。個人差もあるが、初産婦は産褥3-4日ぐらい、経産婦は2-3日ぐらいまで乳汁分泌量は少なく、新生児の必要量に満たないこともあるが、母乳の分泌が十分になると、自然と授乳間隔は3-4時間ぐらいと一定になってくる。乳汁分泌が良好の場合は、両側の乳房で10分程度でほぼ児のニーズを満たすほどの量を飲むことができる。

(6) 日本におけるガイドラインなどでの採用の有無

あり (産婦人科ガイドラインUpdate)

上記The Cochrane Review(CD000090 1994.2.2)の結果を引用している。

(7) 選択された特別なグループに対する有効性の検討

なし

(8) 医事紛争裁判における評価 (推定を含む)

なし

5. 担当者氏名: 三砂ちづる・八重ゆかり

「検討テーマ：母乳授乳時間を制限する」 参考文献Table (The Cochrane Review 1, 比較研究 2)

No	Journal	Title	Authors	Abstract	PT
14	The Cochrane Review CD000090 (1994.2.2) in The Cochrane Library 2001 issue 4	Feeding schedules in hospitals for newborn infants	Renfrew MJ, Lang S, Martin L, Woolridge MW	<p>Background: Regular breastfeeding times have been thought to help establish routines and promote infant digestion, while frequent breastfeeding has been recommended to enhance breastfeeding and infant growth. Objectives: The objective of this review was to assess the effects of frequent breastfeeding compared with less frequent breastfeeding in the early days after birth. Search strategy: We searched the Cochrane Pregnancy and Childbirth Group trials register. Selection criteria: Randomised and quasi-randomised trials comparing on demand or frequent breastfeeding (two or three hourly) schedules in hospital compared with four hourly restricted feeds. Data collection and analysis: Trial quality was assessed and data were extracted independently by two reviewers. Main results: Three trials involving 400 women were included. There were significant methodological limitations in some of the studies. Compared to two hourly, three hourly or on demand breastfeeding, restricted (less frequent four hourly breastfeeding) was associated with greater discontinuation of breastfeeding by four to six weeks postpartum (relative risk 1.53, 95% confidence interval 1.08 to 2.15). Restricted breastfeeding was associated with increased incidence of sore nipples (relative risk 2.12, 95% confidence interval 1.22 to 3.68), engorgement (relative risk 2.10, 95% confidence interval 1.25 to 3.21) and the need to give additional (formula) feeds (relative risk 3.14, 95% confidence interval 1.24 to 8.00). Reviewers' conclusions: There appear to be a number of disadvantages from restricting breastfeeding to a four hourly schedule in the first few days after birth. More frequent or on demand breastfeeding is associated with fewer complications and longer duration of breastfeeding.</p>	Systematic Review, Meta-analysis
15	日本看護学会17回集録母性看護1986: 162-164.	母乳栄養推進についての一考察 規則授乳100例と自律授乳100例との比較	吉井博子 他	<p>なし (原著より内容要約: 自律授乳群100例と規則授乳群100例について、産後5日目に母乳のみか混合授乳か、産後1ヶ月めに母乳のみか混合授乳か、産後の生理的体重減少、産後1ヶ月の1日体重増加量、を比較した。産後1ヶ月に母乳のみか混合授乳かについて、自律授乳で母乳のみが多かった。その他の3項目については差は認められなかった。)</p>	比較研究
16	奈良県立三室病院看護学雑誌2001; 17: 50-53.	早期頻回授乳による母乳育児支援の試み 母乳栄養率の向上をめざして	横谷春美, 後藤寿美子, 仲川敬子, 荻田三枝子, 新谷雅史	<p>出産早期から頻回授乳をした26名と、3時間毎定時授乳をしていた37名とで、退院時・生後1カ月の母乳栄養率や児の体重平均値の群間比較を行った。母乳栄養率は退院時、生後1カ月の時とも頻回授乳群が有意に高かった。生後1カ月の時における児の体重平均値は両群間に有意差を認めなかった。</p>	比較研究

## XX. 母乳栄養中の母親に乳頭クリームまたは軟膏

### 1. The Cochrane Library の結論

Systematic review withdrawn

### 2. 世界保健機関 (WHO) の勧告

記載なし

### 3. 検討したデータベース・文献

1. The Cochrane Library 2002 Issue 4 (RCT 4)
2. PubMed (RCT 4 同上)
3. 医学中央雑誌 RCT なし
4. Breastfeeding and Human Lactation (Jones and Bartlett) 記載なし
5. MIDIRS Database (RCT 4 同上)
6. プリンシプル産科婦人科学 2 (メジカルビュー社)

### 4. 検討結果

#### (1) 結論

乳頭クリームまたは軟膏は、乳頭の痛み、傷の治癒、母乳栄養の持続期間に良い効果があるとは認められない。

#### (2) 根拠となる報告の質

無作為化介入試験 Centuori S, et al. 1999、Brent N, et al. 1998、  
Puch LC, et al. 1996、Schrz AR and Kobermann M, 1978

#### (3) 日本におけるデータの質

記述研究  
専門家の意見

#### (4) 日本における利用状況 (推定を含む)

一部の施設

#### (5) 日本における教科書記載の有無

あり  
乳頭びらん、乳頭亀裂の処置は、局所の清潔、抗生物質軟膏、硼酸軟膏またはビタミンA軟膏塗布。(プリンシプル産科婦人科学 2)

#### (6) 日本におけるガイドラインなどでの採用の有無

なし

#### (7) 選択された特別なグループに対する有効性の検討

なし

#### (8) 医事紛争裁判における評価 (推定を含む)

なし

### 5. 担当者氏名：戸田律子

## XXI. 母乳哺育児に水分（水、糖水）または人工乳のルーティンな補充

### 1. The Cochrane Library の結論

Systematic review withdrawn (protocol を作成中)

### 2. 世界保健機関 (WHO) の勧告

(文献 2) 母乳育児の問題の予防と解決には、母親を専門的な技能で援助し、特別な医学的適応がない限り母乳栄養以外の補充をしてはならない。補充の制限によって、現在もっとも費用効果の高い効果が得られる。

(文献 5) 健康な正期産児が回数や時間を制限しないで欲しがるまま (自律) 授乳されている場合、ルーティンとして血糖値を測ったり、人工乳や水分 (水、糖水) を与える必要はない。

### 3. 検討したデータベース・文献

1. The Cochrane Library 2002 Issue 4 (RCT 2, CCT 1)
2. Evidence for the Ten Steps to Successful Breastfeeding WHO1998
3. 医学中央雑誌 RCT なし
4. Breastfeeding and Human Lactation (Jones and Bartlett, 1999)
5. Hypoglycaemia of the Newborn: Review of the Literature WHO1997
6. MIDIRS Database
7. プリンシプル産科婦人科学 2 (メジカルビュー社)

### 4. 検討結果

#### (1) 結論

医学的適応がない場合、新生児に母乳以外の水分 (水、糖液) や人工乳を補充すべきではない。

#### (2) 根拠となる報告の質

- メタアナリシス (WHO 1997)  
無作為化介入試験 Martin-Calama J, et al, 1997  
Perez-Escamilla, et al, 1992  
計画された介入試験 Gray-Donald, et al. 1985  
専門家の意見 (WHO 1998)

#### (3) 日本におけるデータの質

記述・(観察) 研究  
専門家の意見

#### (4) 日本における利用状況 (推定を含む)

病産院では広く一般的

#### (5) 日本における教科書記載の有無

あり  
初回の哺乳では、5%糖液を10~20ml与え、哺乳力、嘔吐、咳、呼吸運動、チアノーゼ、腹膨満などについて観察し、異常のない場合にはできるだけ早期から母乳栄養にする。(プリンシプル産科婦人科学 2)

#### (6) 日本におけるガイドラインなどでの採用の有無

なし

#### (7) 選択された特別なグループに対する有効性の検討

あり

The Cochrane Library 2002 Issue 4 メタアナリシス  
低体重児、早産児の場合、成乳の母乳だけでは栄養不足になる可能性があるが、正期前の母乳栄養は胃腸や神経学的発達への悪影響を減少させる利点がある。

Hypoglycaemia of the Newborn: Review of the Literature (WHO 1997)メタアナリシス  
健康な正期産児が、単に十分に飲んでいないというだけの理由で「症候性」低血糖を起こすことはない。低血糖のリスクは、早産、Small for Gestational Age、仮死、病理、糖尿病の母親を持つ、といった児にあり、生後24時間以内に低血糖を起こすことが多い。それ以後の、または、遷延や反復する低血糖は、必ずしも母乳不足を意味しない (感染症など、他の原因を調べなければならない)。保温室では授乳時間以上空けないようにし、上記ハイリスク児には、信頼できる測定方法で血糖値を4.7 ml/dl以上に保つことが望ましい。ハイリスク児にとっても、母

乳はもっとも安全で栄養的にも優れた食物である。しかし、一部の極低出生体重児に、特定の栄養素を添加する必要があるかもしれない。

Cohen RJ, Brown KH, et al. 2000 (観察記述研究)

熱帯気候下の正期産の低体重児(1500-2,000g)は水分を補給しなくても、8週間後(n=58)には(母乳栄養だけで期待される10パーセントイル以上の体重増加を示した為、暑い気候でも、水分補給は不要であることが示唆された。

日本におけるデータの質

観察研究  
専門家の意見

日本における出教科書記載

低体重児も母乳で保育することが最良(中略)母乳不足の場合には、体重が2,000g以下では低出生体重児用調整乳を用いる。(プリンシプル産科婦人科学2)

(8) 医事紛争裁判における評価(推定を含む)

なし

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