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## COMFORT-SCALE AND NEWBORNS: A REVIEW

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**Object of study:** Assessing the current state-of-the-art regarding the clinimetric properties and clinical possibilities of COMFORT-scale in the care of ill neonates. The COMFORT-scale is a multi-dimensional assessment tool, originally designed to measure distress in ventilated infants.

**Method:** A review of the scientific literature was performed. Studies evaluating the COMFORT-scale, a derived version of the COMFORT-scale or studies comparing the COMFORT-scale with other assessment methods and the presence of a recognizable group of newborns were included. Review articles were not included. The studies found were critically appraised, using the guidelines of Terwee, for its clinimetric properties; validity (content-, criterion- and construct validity and internal consistency), reproducibility, longitudinal validity, responsiveness, floor and ceiling effects and interpretability.

**Results:** Nine studies (until October 2009) were included. The studies contained the original COMFORT-scale plus five derived versions; COMFORT plus 'crying', COMFORT-'behaviour', COMFORT-'modified', COMFORT-'adapted' and COMFORTneo. The scales have been studied for several concepts; pain, stress, distress and sedation and with neonates suffering from different disorders as well as during different (invasive) procedures. None of the studies had an overall positive judgement on all aspects of the methodological quality according to the guidelines of Terwee. Judgement was hampered by lack of information in the studies, lack of a golden standard and lack of clarity about the cut-off point of the different scales. Of all COMFORT-scale versions the COMFORT-'behaviour'-scale and the COMFORTneo-scale had the best clinimetric properties.

**Conclusion:** For now the COMFORTneo-scale seems the best option to measure discomfort of ill neonates.

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## IS PREVENTION OF ATOPIC DERMATITIS WITH HYDROLYSATE FORMULAS COST-EFFECTIVE? AN APPLICATION OF RESULTS OF THE GINI-STUDY TO THE GERMAN SITUATION

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**Background and aims:** Atopic eczema generates a high economic burden, eg. 1.2-3.5 billion € per annum in Germany. The GINI trial, a prospective, randomized, double-blind intervention study in Germany that recruited a cohort of 2,252 infants with parental and/or sibling-related heredity for atopy between 1995 and 1998 showed that children fed with certain hydrolysate formulas at least the first four months of life have a reduction of the relative risk for atopic dermatitis by 26-45% compared to a cow's milk formula. The objective of this study was to assess the cost-effectiveness of feeding hydrolysate formulas in the prevention of atopic eczema.

**Methods:** Cost-effectiveness was assessed with a decision tree model programmed with the software TreeAge. Children were followed over a 6 year period. Costs and effects were analyzed using the perspective of the German statutory health insurance (SHI) and a societal perspective.

**Results:** In the base case scenario both the partial whey hydrolysate and the extensively hydrolysed casein formula-feeding are cost-effective in preventing infantile atopic eczema from a societal perspective. In the sixth year both formulas generated cost-savings. From the SHI perspective, the extensively hydrolysed casein formula was cost-effective and the partial whey