

eventually documented. A 'post hoc' power calculation has shown that all these trials were not large enough to detect a statistical difference with regard to the main outcomes.

Conclusions: The use of analgesia effectively reduces the intensity of **pain** in children with **acute abdominal pain** and does not interfere with diagnostic accuracy. The small sample size of the studies included in our review should however be considered a potential limitation to their results.

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PAIN ASSESSMENT

ACUTE PAIN IN CHILDREN

Psychoeducational preparation of children for surgery: The importance of parental involvement

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Objective: To examine the effects of therapeutic play intervention on outcomes of children undergoing day surgery, and to highlight the importance of parental involvement in the psychoeducational preparation of children for surgery.

Methods: A randomized controlled trial, two group pre-test and repeated post-test, between subjects design was employed. Hong Kong Chinese children (7–12 years of age; $n = 203$) admitted for elective surgery in a day surgery unit, along with their parents during a 13-month period, were invited to participate in the study. By using a simple complete randomization method, 97 of children with their parents were assigned to the experimental group receiving therapeutic play intervention, and 106 children with their parents were assigned to the control group receiving routine information preparation.

Results: The results showed that both children and their parents in the experimental group reported lower state anxiety scores in pre- and post-operative periods. Children in the experimental group exhibited fewer instances of negative emotional behaviours and parents in the experimental group reported greater satisfaction. The results, however, find no differences in children's post-operative **pain** between the two groups.

Conclusion: The study provides empirical evidence to support the effectiveness of using therapeutic play intervention and the importance of parental involvement in the psychoeducational preparation of children for surgery. Practice impli-

cations: The findings heighten the awareness of the importance of integrating therapeutic play and parental involvement as essential components of holistic and quality nursing care to prepare children for surgery. ©2006 Elsevier Ireland Ltd. All rights reserved.

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The efficacy of non-pharmacological interventions in the management of procedural pain in preterm and term neonates A systematic literature review

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Background: Neonates in a neonatal intensive care unit are exposed to a high number of **painful** procedures. Since repeated and sustained **pain** can have consequences for the neurological and behaviour-oriented development of the newborn, the greatest attention needs to be paid to systematic **pain** management in neonatology. Non-pharmacological treatment methods are being increasingly discussed with regard to **pain** prevention and relief either alone or in combination with pharmacological treatment.

Aims: To identify effective non-pharmacological interventions with regard to procedural **pain** in neonates.

Methods: A literature search was conducted via the MedLine, CINAHL, Cochrane Library databases and complemented by a handsearch. The literature search covered the period from 1984 to 2004. Data were extracted according to pre-defined criteria by two independent reviewers and methodological quality was assessed.

Results: Thirteen randomised controlled studies and two meta-analyses were taken into consideration with regard to the question of current nursing practice of non-pharmacological **pain** management methods. The selected interventions were 'non-nutritive sucking', 'music', 'swaddling', 'positioning', 'olfactory and multisensorial stimulation', 'kangaroo care' and 'maternal touch'. There is evidence that the methods of 'non-nutritive sucking', 'swaddling' and 'facilitated tucking' do have a **pain**-alleviating effect on neonates.

Conclusions: Some of the non-pharmacological interventions have an evident favourable effect on pulse rate, respiration and oxygen saturation, on the reduction of motor activity, and on the excitation states after invasive measures. How-

ever, unambiguous evidence of this still remains to be presented. Further research should emphasise the use of validated **pain** assessment instruments for the evaluation of the **pain**-alleviating effect of non-pharmacological interventions. ©2006 European Federation of Chapters of the International Association for the Study of **Pain**.

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The decision to use topical anaesthetic for intravenous insertion in the paediatric emergency department

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Objectives: Topical anaesthetic creams to reduce the **pain** of intravenous (IV) placement may be more effectively used in the emergency setting if they are applied by nurses in the triage area of the emergency department or soon after the patient is placed into a room. This strategy requires accurate prediction of which patients will require IV placement. The objective of this study was to compare triage nurse judgment regarding IV placement in paediatric patients with a triage prediction rule using chief complaint, referral status, and high-risk medical history. A secondary objective was to evaluate whether the presence of the anaesthetic cream placed in triage influenced the subsequent decision to place an IV and thus invalidate the prediction strategy.

Methods: Triage nurses were randomly assigned to a prediction score group (PRD), classifying patients as 'IV likely' if the prediction score was ≥ 2 , or an 'own judgment' (RN JDGMT) group, classifying any patient that he or she considered to have a $\geq 50\%$ risk of receiving an IV. The rate of actual IV placement in the emergency department treatment rooms was compared between the triage prediction strategies. To assess the influence of the presence of lidocaine 2.5% and prilocaine 2.5% (EMLA cream) on the judgment to place an IV, only 75% of the 'IV likely' patients had EMLA applied in triage; the IV placement rate was compared between 'IV likely' patients who did or did not have EMLA applied.

Results: The authors enrolled 3790 of 5025 (75.4%) of eligible patients. The RN JDGMT group predicted 165 of 250 (66%; 95% confidence interval=59–72%) of IVs placed, compared with 127 of 305 (41%; 95% CI=36–47%) in the PRD group ($P < 0.0001$). Positive predictive values were 59 and 53% for the RN JDGMT and PRD groups, respectively. There was no difference in IV placement

rates in the 'IV likely' patients who did and did not have EMLA applied.

Conclusions: Triage nurse judgment to predict eventual IV placement had greater sensitivity and similar predictive value compared with a prediction model based on medical history and chief complaint. The triage placement of topical anaesthetic in paediatric patients did not change the eventual rate of IV placement. ©2006 by the Society for Academic Emergency Medicine.

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GUIDELINES FOR ACUTE PAIN TREATMENT

'You feel so hopeless': A qualitative study of GP management of acute back pain

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Background: Biopsychosocial management of non-specific back **pain** in general practice has been problematical, with frequent inappropriate referral for imaging and secondary care interventions and lack of self-confidence in the ability to provide evidence-based care.

Aims: To examine GP attitudes to managing back **pain** as a biopsychosocial problem in order to inform future educational strategies that may improve practice.

Methods: Twenty-one GPs from separate practices within the Dorset and Somerset Strategic Health Authority area (UK) participated in telephone interviews leading to the development of vignettes to refine the theoretical framework for subsequent focus group interviews about evidence-based back **pain** management. Transcripts were analysed thematically.

Results: There were five main emergent themes. These were generally negative and dominated by concerns about doctor-patient interaction. They included feelings of frustration, mismatches of perceptions in the doctor-patient relationship, problems in relation to time, challenges and discord between stakeholders in the process (for example, over sickness certification) and a lack of resources for education, awareness and local services to refer to. Psychosocial aspects of the actual care process were rarely raised. Participants favoured education that is multidisciplinary, in small group format and involves the participation of patients.

Conclusions: This study illustrates the difficulties that GPs may have in applying the relevant