

ESPR/ESPNC – Multidisciplinary Pediatric Research

IS-055 EVALUATING THE EFFECTIVENESS AND VALIDITY OF SCORING TOOLS IN HEALTHCARE

G Sefton. PICU, Alder Hey Children's Hospital, Liverpool, UK

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The act of measurement is an essential component of health sciences, to quantify severity of disease, blood biochemistry or response to treatment. Objective measures such as these are relatively easy to evaluate. However in areas of health science where subjective assessment is required, the fallibility of human judgement is a confounder e.g. pain scores, quality of life or elements of clinical assessment. Efforts to standardise these 'tests' so the meaning is universally understood has led to the development of scoring tools.

Development of scoring tools is not always conducted in a rigorous manner, leading to mis-application of measures, or unfounded reliance on the findings.

This session will provide an overview of approaches to critically evaluate the effectiveness and validity of scoring tools used in paediatric healthcare.

Allergology

IS-056 ADVANCES IN THE DIAGNOSIS OF ALLERGY

A Nieto. Paediatric Pulmonology and Allergy Unit, Children's Hospital La Fe, Valencia, Spain

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The diagnosis of allergy has experienced a great progress during the last years. The aetiological diagnosis of allergy is based on skin prick tests and *in vitro* specific-IgE tests. However, until a few years ago, we only were able to identify by these methods the allergenic sources (pollens, epithelia, house dust mites, foods,...).

Nevertheless the allergenic sources have many different proteins, but commonly only a few of them are able to induce allergic reactions. The identification of these allergenic proteins and the improvement of techniques for obtaining relevant quantities of recombinant allergens, have permitted to develop *in vitro* and *in vivo* products able to identify these specific allergenic proteins, beyond the mere identification of the allergenic source.

This has meant the possibility to discover the proteins responsible for phenomena of cross-reactivity, to distinguish between true and false polysensitized patients, to uncover new allergenic proteins able to explain so far unexplainable reactions, to identify major and minor allergens, to predict the possibility to have an allergic reaction and the severity of it, to foresee the probability to overcome an allergic disease, to improve the composition and the prescription of specific immunotherapy, etc.

Antibiotic Resistance

IS-057 CUTTING ON ANTIBIOTICS IN PRIMARY CARE: WHAT CAN BE DONE?

Z Grossman. Pediatric Clinic, Maccabi Health Services, Tel Aviv, Israel

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Antibiotics are the most common prescription drugs given to children, 75% percent of which are for acute respiratory tract infections (ARTIs). Since antibiotic prescribing is linked with antibiotic resistance, an ongoing effort is taking place to reduce prescribing and use of these medications. Although a decline in antibiotic prescribing for ARTIs has been recently documented in the US and UK, prescription of broad instead of narrow spectrum antibiotics is a major problem.

A survey examining European primary care paediatricians' knowledge attitude and practice regarding ARTIs and antibiotics will be presented. The study pointed at a need for an educational intervention based on the risk-benefit analysis associated with the antibiotic prescribing for minor URIs, to reduce inappropriate prescribing.

Several strategies aimed either at clinicians to reduce prescribing or at caregivers to reduce antibiotic use will be presented. Multi-faceted approaches aimed at clinicians and parents have proven most effective in reducing prescribing. The effectiveness increased if structuring the clinician-parent interaction during the visit took place, and when computerised automatic prescribing prompts were used. The use of waiting room material was ineffective. Use of antibiotics by caregivers was reduced when delayed prescriptions were given.

Report from an antibiotic stewardship program in the US has recently been published. A one year program of personalised quarterly audit and feedback on prescribing through the computerised health record system succeeded to reduce broad spectrum antibiotic prescribing for ARTIs.

Child Protection

IS-058 SCREENING ON CHILD ABUSE IN EUROPE

HA Moll. General Paediatrics, Erasmus MMC Sophia Kinderziekenhuis, Rotterdam, Netherlands

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The emergency department is the main system for crises based health care visits. It is estimated that 0.2%–10% of ED visits concern child abuse. Systematic screening might improve the detection rate, but studies are scarce. Furthermore different non-validated screening tool are used.

Objective to validate a 6 item screening tool (the ESCAPE instrument), to improve screening by training of ED nurses and to evaluate detection of child abuse.

Methods Based on a systematic review the ESCAPE screening tool was developed. The validity was evaluated in the Netherlands in 18,275 children. Communication training sessions of the ED nurses were implemented and the effect on the screening and detection rate was evaluated.

Results The predictive value of the six screening items (e.g. consistent history, delay in seeking medical help, injury fits with developmental level, interaction, top-toe exam, doubt about safety) was high (sensitivity 0.80, specificity 0.98). The detection rate in children screened for child abuse was 5 times higher than that in children not screened. In the study population of 104,028 children (7 ED's), the screening rate increased after introduction of the ESCAPE instrument from 20% to 67%. Significant trend changes were observed after training of the nurses and legal requirements for screening. The suspicion of child abuse detected by screening were justified in the majority.

Conclusions Systematic screening for child abuse in emergency departments is effective. The ESCAPE instrument and ED staff