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### MAKING DECISIONS TO LIMIT TREATMENT IN LIFE-LIMITING AND LIFE-THREATENING CONDITIONS IN CHILDREN

The revised Royal College of Paediatric and Child Health guidance on making decisions to limit treatment in life-limiting and life-threatening conditions in children is published as a supplement this month. The document provides an ethical and legal framework for practicing clinicians revised to reflect the changes in the scope and availability of advanced technology and in the emphasis and application of ethical and legal principles in decision making. The document sets out the circumstances under which withholding or withdrawing life sustaining treatment might be ethically permissible—NOT circumstances under which such treatment must certainly be withheld or withdrawn. In particular it describes situations in which individual children should be spared inappropriate invasive procedures—NOT types of children to whom invasive procedures should be denied. The document sets out three sets of circumstances when treatment limitation can be considered because it is no longer in the child's best interests to continue, because it cannot provide overall benefit—firstly when life is limited in quantity, secondly when life is limited in quality and thirdly informed competent refusal of treatment. The document covers the ethical and legal framework and the process of decision making and the practical aspects in detail. It is a very powerful document which will help professionals and families of children with complex medical disorders in their desire and responsibility to act in the best interests of the child.

### PHYSICAL AND NEURODEVELOPMENTAL OUTCOMES IN CHILDREN WITH SINGLE-VENTRICLE CIRCULATION

Hypoplastic left heart syndrome (HLHS) is now mostly diagnosed in fetal life. Survival has increased dramatically from a baseline of zero in the 1980s to now 65% at age 5 and 55% at age 10 years as a consequence of the introduction of staged surgical palliation/transplantation. Davidson and colleagues report the physical and neurodevelopmental outcomes of children with HLHS (n=58 of 62 survivors from 105 live births during the study period 1995–2003) and compare with other patients

with functionally single ventricle circulation surviving beyond age 10 years. There are significant differences—subjective reduction in exercise tolerance in 72% versus 45%, educational concerns were reported more frequently 41% versus 23%, referral to a psychologist 29% versus 14%, diagnosis of a behavioural disorder (ADHD, autism) 12% versus 0%, referral to other specialist services 67% versus 48%. The differences may reflect many factors including that in HLHS flow through the aortic arch is retrograde in utero (discussed in the paper), the patients are sicker and that they are effectively a historical cohort now with significant advances in paediatric cardiology over the last 10–15 years. Taking both conditions together the paper highlights the significant long term morbidity of infants born with complex congenital heart disease and the importance of long term follow up by the multidisciplinary team. *See page 449*

### REDUCING HOSPITAL-ACQUIRED INFECTIONS AND IMPROVING THE RATIONAL USE OF ANTIBIOTICS IN A DEVELOPING COUNTRY

Hospital acquired infections (HAI) are amongst the most significant causes of morbidity and mortality in health care and challenging to impact on particularly in resource poor settings. Murni and colleagues report the implementation of a multifaceted infection control and antibiotic stewardship programme and evaluate its effect on HAI and inappropriate antibiotic usage (teaching hospital, Indonesia, 27 months). The results are impressive. The intervention consisted of hand hygiene campaign, antibiotic stewardship rounds and enhanced infection control practices. There was a significant reduction in HAI (the detail is in the paper) from 22.6% to 8.6%, inappropriate antibiotic usage (WHO Pocket Book of Health Care for children) from 43% to 20.6% and hand hygiene compliance increased from 18.9% to 62.9%. In hospital mortality fell from 10.4 to 8%. The data support the intervention being used across all health care settings with significant impact on morbidity and mortality from HAI. *See page 454*

### PATTERNS OF BRUISING IN PRESCHOOL CHILDREN

Kemp and colleagues describe the prevalence and pattern of bruising in a

longitudinal study (328 children, age <6 years, recorded weekly for 12 weeks). 3523 bruises were reported from 2570 data collection points. 6.7% of 1010 collections from pre mobile children had at least one bruise (2.2% of babies who could not roll over, 9.8% in those who could), compared with 45.6% of early mobile and 78.8% of walking child collections. The most commonly affected site in all ages was below the knees. Rare sites for bruising at any age included ears, neck, genitalia and hands plus buttocks and front trunk in early and premobile children. These data should help clinicians understand the pattern of everyday bruising and recognise children who have an unusual number or distribution of bruising and require more specialist assessment including consideration of physical abuse. These issues are discussed further in an accompanying editorial. *See pages 426 and 419*

### OBSESSIVE-COMPULSIVE DISORDER IN CHILDREN AND ADOLESCENTS

Obsessive-compulsive disorder (OCD) is characterised by repetitive, intrusive thoughts (obsessions) and distressing, time consuming rituals (compulsions). It was previously felt to be rare but recent epidemiology suggests a prevalence of 0.4–4%. Krebs and colleagues review the aetiology, underlying pathophysiology, assessment and management including the challenge of distinguishing OCD from autistic spectrum disorder and tic disorders in adolescence. Therapy is by cognitive behavioural therapy and/or medication. The efficacy of therapy and recent developments in the field are discussed. The condition is important to consider, assess for and refer if appropriate so that young people with this chronic disabling condition get the best possible input. There is a useful short screening tool included with such questions as: Do you wash or clean a lot? Do you check things a lot? Is there any thought that keeps bothering you that you would like to get rid of but cannot? Do your daily activities take a long time to finish? Are you concerned about putting things in a special order? Or are you very upset by mess? Do these problems trouble you? Questions that are helpful to use when at risk children are assessed. *See page 495*