

Adolescent Medicine

IS-001 ADOLESCENT HEALTH: IMPLICATIONS FOR POLICY AND PROGRAMS

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10.1136/archdischild-2014-307384.1

Recent advances in adolescent health: implications for policies and programmes The health of adolescents is central to public health. Directing resources to health during the adolescent years is essential for building on investments made during the first decade of life, for ameliorating problems that may arise during these early years of childhood, for transitions to adulthood and for health in the future, for this generation and the next.

Significant progress has been made in understanding health and development during the second decade. This includes improved estimates of the health status of adolescents: mortality, disability adjusted life years lost and the initiation of health-related behaviours; clarity about the determinants that underlie adolescent health and disease; insights into the links between the developmental processes taking place during adolescence and health problems and health-related behaviours and conditions; and a much stronger evidence base for a range of interventions that can have a positive impact on adolescents' health.

The presentation will outline some of the major implications of this increased knowledge for policies and programmes, drawing particularly from the recent WHO publication "*Health for the World's Adolescents: a second chance in the second decade*". It will provide an overview of how recent advances confirm, correct and challenge existing policies and programmes, and outline some of the opportunities and challenges for ensuring that what is known influences what is done to improve and maintain the health of adolescents.

Brain

IS-002 INTRACRANIAL PRESSURE: THE PHYSICS APPLIED TO CLINICAL PRACTICE

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10.1136/archdischild-2014-307384.2

Intracranial pressure (ICP) is derived from cerebral blood and CSF circulatory dynamics, in pathology having also strong component related to volumetric changes in brain tissue or lesions. It can be affected in a course of many diseases of central nervous system. Monitoring of ICP requires an invasive transducer, although some attempts to measure it non-invasively have been made. Because of its dynamic nature, instant CSF pressure measurement using the height of a fluid column via lumbar puncture may be misleading. An averaging over 30 min with should be the minimum, with a period of overnight monitoring in conscious patients providing optimal standard. Computer-aided recording with on-line waveform analysis of ICP is very helpful.

Recent trial BestTRIP has been unfortunately badly designed and conducted, therefore it was unable to bring constructive message. Although there is no positive 'Class I' evidence, ICP monitoring is useful, if not essential, in head injury, poor grade subarachnoid haemorrhage, stroke, intracerebral haematoma, meningitis, acute liver failure, hydrocephalus, benign intracranial

hypertension, craniosynostosis, etc. Information which can be derived from ICP and its waveforms include cerebral perfusion pressure, regulation of cerebral blood flow and volume, CSF absorption capacity, brain compensatory reserve, content of vasogenic events. Some of these parameters allows prognosis of survival following head injury and optimisation of 'CPP-guided therapy'.

Bronchopulmonary Dysplasia

IS-003 EARLY INHALED CORTICOSTEROIDS FOR THE PREVENTION OF BRONCHOPULMONARY DYSPLASIA IN EXTREMELY PRETERM INFANTS: THE NEONATAL EUROPEAN STUDY OF INHALED STEROIDS (NEUROSIS)

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10.1136/archdischild-2014-307384.3

Background Survival of extremely low birth weight (ELBW) infants has improved in recent decades but bronchopulmonary dysplasia (BPD) remains a major problem. The effect of early inhalation of corticosteroids on survival without BPD in these infants is unclear.

Objective To determine the effect of early use of inhaled budesonide in infants with gestational ages of 23 0/7–27 6/7 weeks requiring any form of positive pressure support on survival without BPD at 36 weeks' gestational age.

Methods Randomised controlled trial. Budesonide or placebo were continued until infants were either off supplementary oxygen and positive pressure support or had reached a gestational age of 32 0/7 weeks regardless of their ventilator status. The primary outcome was death before 36 weeks of gestational age or survival with BPD, defined according to the physiological definition.

Results We randomly assigned 863 infants during the first 12 h of life in 40 centres in 9 countries to inhaled budesonide or placebo. In 7 infants consent was withdrawn. Of the 437 infants assigned to inhaled budesonide, 175 died or survived with BPD

Abstract IS-003 Table 1

Primary Outcome	Placebo	Budesonide	Relative Risk (95% CI)	Relative Risk Adjusted for GA (95% CI)	P Value	Odds Ratio Adjusted for GA, birth weight, caffeine, mech. ventilation (95% CI)
Primary Outcome	194/419 (46.3)	175/437 (40.0)	0.86 (0.74-1.01)	0.86 (0.75-1.00)	0.053	0.71 (0.53-0.97)
Components of primary outcome						
Death at <36 wk of gestational age	57/419 (13.6)	74/437 (16.9)	1.24 (0.91-1.71)	1.24 (0.91-1.69)	0.165	
Survival with BPD	138/363 (38.0)	101/363 (27.8)	0.73 (0.59-0.90)	0.74 (0.60-0.91)	0.004	