55th National Conference of Indian Academy of Pediatrics (PEDICON 2018)

LEGAL ISSUES IN ADOLESCENTS

Dr Himabindu Singh, Hyderabad

- The rate of crime amongst youth has increased to 40% and almost 56% of the crimes are done by youngsters in the age group 16-25 years.
- Creating awareness on medico-legal issues by parents, teachers and stake holders is important since it impacts the lives of adolescents.
- Knowledge about POCSO Act, Juvenile Justice Act, legal age of marriage and consent for sex, Narcotic drugs and Psychotropic Substances Act, Child Labour Act, Laws regarding pornography, Motor Vehicle Act, media literacy, etc., among adolescents needs to be enhanced.
- Teaching adolescents self-discipline is the way out.
- Good communication between parents and children helps develop a nurturing environment, helps in sharing concerns, gives scope for guidance and nonintrusive supervision.
- Monitoring their digital activities, peer groups and early detection of deviation which is likely to become a legal issue should be taken up by gatekeepers of adolescent health.
- Enhancing life skills is protective and avoids conflict with law.

RAPID DIAGNOSTIC TESTS IN INFECTIOUS DISEASES

Dr Ketan Shah, Surat

- Various rapid diagnostic tests are available now in India.
- Tests like BIOFIRE, which use a panel of tests, can give fast and accurate diagnosis. This test is used in respiratory, GIT and CSF specimens. It has been tried even in blood samples.
- Malaria, dengue, leptospirosis, chikungunya, typhoid can be diagnosed by rapid card tests. However they need to be interpreted in view of clinical findings and need to be confirmed by other tests like blood culture or PCR, ELISA-based tests.
- Urine strip test is also a rapid test but has limitation of doing only glucose and albumin detection. Sugars and proteins other than albumin are not detected.
- These newer tools have wide clinical implications.

THERAPEUTIC HYPOTHERMIA IN NEONATES

Dr Muktanshu Patil

- Therapeutic hypothermia (deliberate lowering of the body temperature) aims to cool the brain soon after birth and for several days afterwards to prevent brain damage (Therapeutic hypothermia with intracorporeal temperature monitoring for hypoxic perinatal brain injury. *Interventional Procedures Guidance;* IPG347, 2010 May).
- The aim of intervention with hypothermia is to maintain a core temperature of 33.5°C for 72 hours, commencing as soon as possible after resuscitation.
- Current management of perinatal hypoxic-ischemic injury consists of maintaining physiological parameters within the normal range and treating seizures with anticonvulsants.
- The baby's rectal and skin temperature is measured throughout.
- After cooling, the baby's temperature is gradually returned to normal. The primary goal of rewarming is to slowly rewarm the baby over 6-12 hours.
- The management of cooled babies includes providing them with respiratory support; cardiovascular support and fluid, electrolytes and management of clotting abnormalities.
- There are no absolute contraindications to cooling infants who meet the criteria, except where there are other life-threatening congenital abnormalities present. Relative contraindications include >12 hours of age, with major congenital abnormalities, with severe coagulopathy, requiring inspired oxygen over 80%, 'in extremis' and not expected to survive.
- Cooling is concluded after 72 hours.

ANTIVIRALS - WHEN, HOW AND WHERE?

Dr Ritabrata Kundu, Kolkata

- The antiviral chemotherapy for the treatment of common viral infections is faced with many challenges such as intracellular replication of the virus, unavailability of phenotypic/genotypic assay for resistance, incomplete pharmacodynamics of antiviral drugs, outcome influenced by interplay between pathogen and host defences, and dependence of optimal therapy on specific and timely diagnosis of the disease.
- The decision to start antiviral therapy in respiratory infections, such as flu, should not wait for lab confirmation.
- Antiviral treatment for patients with suspected or confirmed flu is only recommended in case of hospitalized patients, with severe, complicated or progressive illness and those with higher risk of complications.
- Antiviral therapy is not recommended in case of acute hepatitis while treatment is only recommended in immune active form of chronic hepatitis.
- In case of Herpes simplex encephalitis, 3 antiviral drugs are available in India: acyclovir, valacyclovir and famciclovir.
- In case of neonatal HSV, acyclovir use is recommended.
- As per the recommendation of AAP, uncomplicated varicella in a healthy child should not be given treatment. In immunocompetent persons at increased risk of moderate-to-severe varicella, acyclovir is recommended.
- Infants born to mother with varicella, preterm <28 weeks or <1 kg exposed to varicella should be treated with VZIG/IVIG.

DERMATOLOGICAL MANIFESTATIONS OF INFECTIOUS DISEASES IN CHILDREN

Dr Ashok S Kapse, Surat

- Physical examination should include general appearance, vital signs, signs of toxicity.
- Types of rash - Erythematous; maculopapular; vesicular; bullous; petechio-purpuric; necrotico-gangrenous; erythema multiforme; erythema nodosum; urticarial; epidermo-necrolysis.
- There are 3 approach categories - 1) Serious disease needing urgent intervention; 2) Visibly identifiable viral syndromes; 3) Undifferentiated rash.
- Serious disease needing urgent intervention - Blister, purpura, necrotic, mucosal, sandpaper rash.
- Roseola vs. Rubeola - Fever peaks with rash: Rubeola; fever defervesce with rash: Roseola.

NEONATAL HYPOGLYCEMIA

Dr Ketan G Bharadva, Surat

Healthy term newborns have great nutritional and metabolic adaptive capabilities. Early and exclusive breastfeeding meets their needs.

Usually severe or recurrent or prolonged clinical hyperinsulinemic hypoglycemia causes neurological insult and it occurs in at risk babies. So always segregate babies "at risk" of hypoglycemia and monitor them:

- SGA: <10th percentile wt or clinically evident wasting; LBW; prematurity (<35 weeks, or late preterm infants with clinical signs or extremely poor feeding); discordant twin weight 10% < larger twin; all infants of diabetic mothers, especially if poorly controlled; LGA: >90th percentile for weight and macrosomic appearance.
- Perinatal stress: severe acidosis or hypoxia-ischemia; cold stress; suspected infection; respiratory distress.
- Maternal drug treatment (e.g., terbutaline, β-blockers, oral hypoglycemics).
- Polycythemia (venous Hct >70%)/hyperviscosity; erythroblastosis fetalis; Beckwith-Wiedemann syndrome; microphallus or midline defect; known or suspected inborn errors of metabolism or endocrine disorders.
- Infants displaying signs associated with hypoglycemia.

Rather than routine prelacteal formula or milk supplementation, give attention to general management recommendations for all term infants:

- Act to support early (within 1st hour of birth); frequent (10-12 times/day in initial days); on demand cues; exclusive breastfeeding and promote skin-to-skin contact of mother with infant.
- Help mother to provide stimulation to the breasts by manual or mechanical expression with appropriate frequency (>8 times/day) until baby is latching and suckling well to protect milk supply.

Routine monitoring of blood sugar in term newborns without risk factors is unnecessary and may be harmful.

We should technically train ourselves and staff in how to support breastfeeding. When we irrationally sanction prelacteal milk or formulas instead of trained support to breastfeeding, a mother without a trained support is itself now a risk factor for breastfeeding success!

IJCP SUTRA 379: Kangaroo Mother Care especially for low birth weight infants, wherein the baby is held in a special way stuck with the chest to provide skin-to-skin contact with the mother along with exclusive and frequent breastfeeding.