

Health Maintenance

- Promotion:
 - Activities maintaining and enhancing health such as fluoridated water
- Protection:
 - Activities focused on environmental controls such as CDC regulations, giving H1N1 immunizations

Relevant Issues

- Society's Responsibility: To protect and promote everyone's health
- Health Profession's Responsibility: To make services and information available
- Individual's Responsibility: To exercise their right to health care (informed consent). For example, Jehova's Witness will refuse blood...but if it's a child you can get a court order to get the child the treatment.

Mortality & Morbidity

- Infant Mortality = deaths in 1st yr per 1000 births (US = 6.9)...this rate is going up!
- Morbidity = disability and illnesses per 1000
- Factors:
 - Children are the poorest individuals in the US
 - 1:4 live in poverty
 - At least 1:10 pregnant women receive inadequate prenatal care

Poverty and Health

Poverty is related to poor nutrition, family stress, education and housing...all of these things affect health.

2006 Child Deaths: Sac Co.

- 184 Child Deaths in Sacramento County. They review every death of a child that was born alive.
 - 47.7 deaths per 100,000 population
 - 101 were infants
 - Natural Causes: 119 child deaths (65%)
 - Injuries: 53 child deaths (29%);
- Sac County Child Deaths (cont'd)*
- CAN (abuse or neglect) homicides: 7
 - Undetermined: 12 child deaths (7%)

2006 Natural Deaths (graphic)

2006 Injury Related Deaths (graphics)

- High on homicide, plus Sacramento has a really bad drowning problem (river)
- Under 5 years is most vulnerable age group
- SIDS: if parents are using alcohol and drugs and sleeping with kids, they are at really high risk for SIDS

Injury Prevention: Host (the baby is the host)

FYI: Retinal blastoma shows up when you take a picture...one pupil is larger than the other. this is eye cancer.

- Genetics
- Developmental stage: Denver will show kids who are at risk
- Chronic illness such as cystic fibrosis
- NURSING ROLE: assessment, education

Injury Prevention: Environment

- Barriers
- Restraints
- Protective equipment such as safety seats
- Play equipment
- Gun locks
- NURSING ROLE: education & advocacy. When discharge you ask pt if they have a car seat that's the right size.

Safety Seats KNOW THIS!!!

- Up to 1yr and 20lb = REAR FACING
- Up to 4yr and 40lb = CENTER
- Up to 6yr and 60lb = BOOSTER
- BACK SEAT IF <12 years old

Car seat needs to be new...don't buy second-hand b/c you won't know if it has been compromised.

Injury Prevention: Agent

- Auto collision
- Infectious organisms
- Lead/Poison
- Fire
- NURSING ROLE: community advocacy & education

Cultural Components of Child Health

- Ethnic identity
- Gender, age, sexual orientation
- Differing abilities
- Religion and spirituality
- Financial status and education level
- Place of residency and social roles

Cultural Competence

- Self assessment – continual
- Openness to other and self understanding
- Attend to non-verbal cues
- Checklists and the platinum rule
- Show genuine interest, follow their lead, apologize when you make mistakes and go on

Working with a Translator

- Professional translator vs convenience
- Physical set up – focus on patient/family
- Vocabulary – avoid medical jargon that may not translate well
- Pediatric considerations

Communication

- Involve parents in plan of care
- Family-centered care
- Building relationships
- Non-judgmental
- Culturally competent

Focus of Nursing Practice

- Active and generative
- Family focused
- Identify and build on strengths
- Identify and intervene to minimize risks

“Well Child” Visit (RN has to do this assessment) q 2 months or so for first year... I think it's based on immunizations (2,4,6,12,18)

- Health history
- Physical exam
- Screening
- Prevention education and intervention

Infant Growth and Development

Divide first year into quarters

- 3 months: roll over
- 6 months: sit up
- 9 months: crawls
- 12 months: walks
- Height: 50% increase by 1 year ****NCLEX loves this question**
- Weight: Doubles by 6 months
- Weight: Triples by 1 year

What should we look for?

- Vision
- Hearing
- Communication
- Lead poisoning
- Ingestions of caustic substances
- Injury

Behavioral Indicators for Vision Screening

- No response to visual stimuli
- Drawing or writing with face close to paper
- Excess tearing, rubbing eyes
- Bumps into objects frequently
- Complains of headache

Strabismus

Strabismus = “cross-eyed” ...the eyes do not align simultaneously. Children do not outgrow this--shine a light directly at face...the light is not falling in the same place on each eye (can see this in picture to the right)...the eyes are misaligned.

- Before 4 months, they can't diagnose it. After 4 months, can send to a specialist. The Tx is to patch the stronger eye to build up muscle in the weaker eye.
- If strabismus is not detected and corrected by age 4 to 6 years, the child will eventually develop amblyopia (“lazy eye” ...can lead to loss of vision, usually in the non-dominant eye).

Vision Screening

- done in the office
- tell them what the shapes are so that you know they are using the appropriate name for the item

Criteria for Vision Referral

- Before 5th birthday, unable to read 20/40 line or less
- After 5th birthday, unable to read 20/30, or a two line difference of visual acuity between eyes

Hearing: Risk Factors

- parental concern
- family Hx
- Prenatal Infection -TORCH virus
 - TORCH stands for toxoplasmosis, other infections such as Hep B and syphilis, Rubella, Cytomegalovirus, Herpes simplex.
- Neonatal: being a premie can be a risk factor for hearing loss
- PMH: meningitis, trauma, aminoglycosides (abx), ear infections
 - Check peaks and troughs for aminoglycosides to ensure not getting toxic levels
 - Take the trough level right before you give it
- environmental noise

Screening for Hearing Impairment

- Assessment of developmental milestones
- Assess behavioral characteristics
- Conduction tests

Hearing Tests

- BAER: Brainstem Auditory Evoked Response...tests auditory nerve
 - screen newborns at risk
 - birth to 9 months
- Another test done at 9 months to 2.5 years
 - put a sound out and wave a puppet in corner...condition child to look up when they hear the sound. Then they just do the sound and if the baby looks up then they know they heard the sound and that it wasn't just the puppet that got their attention.
- Play audiometry
 - Child is conditioned to put a peg in a board or toy in drop box when tone is heard
 - 2.5 years to 4 years
- Conventional audiometry
 - 4 years to adolescent
 - Raise hand when hear tone
- OAE = otoacoustic emissions test
 - Small probe that contains a microphone and speaker in the infant's ear. As the infant rests, sounds are generated on the probe and responses that come back from the cochlea are recorded.

Screening for Speech and Language Disorders

- Denver II
- Questioning of parents
- Listening
- Normal language/speech developmental milestones (pg 1101, I think)

Referral Guidelines for Communication Impairment

- S&S of communication impairment may be subtle
- Early identification and referral to speech therapy to avoid learning problems

Nursing care

- Recognize children at risk
- Screening and early referral
- Parent education for optimal development
 - Talk with child
 - Optimum face-to-face distance
 - Reading to child
 - Reinforce attempts at speech

Dental Health

- Dental exams
- Plaque removal
- Low cariogenic diet
- Fluoride supplementation

Dental Health: Infant/Toddler

- Age in months - 2 = number of teeth
- Kids can't brush their own teeth until about 4.
- Teething
 - Buds at birth

- Lower incisors 1st by 6 months
- 6 teeth 1ST yr
- 20 teeth 2nd yr

Lead Poisoning

- Risk Factors
 - Homes built prior to 1950 b/c it's in the paint
 - Soil and dirt left over from old homes
 - Parent occupation (if work in a smelting factory, for instance.)
- Assessment
 - Behavior changes
 - N/V
 - Tingling around lips
 - Lead levels <9
- Treatment for lead poisoning
 - Chelation Therapy
- Sources
 - paint and old pipes (if live in older home, let water run for a bit before using)

Ingestions: Guiding Principle

- Prevention education
 - Kids are at high risk for poisoning
 - Ipecac induces vomiting...not using so much anymore b/c of potential for airway problems and corrosive substances cause damage on the way back up as well.
 - Poison control phone number is the best thing to do. If an airway issue, obviously you'd call 911 first.
- Critical information: first thing they'll ask is "is the child breathing?"
- Treat the patient
 - ABC, Neuro, guided by specific substance
- Prevention: get rid of the poison or lock it up if you must have it (high shelf is not enough)

Gastric decontamination: clinical issues

- Ipecac
 - Gastric irritation & central stimulation
 - Very effective in producing emesis but questionable effect on clinical outcome
- Gastric Lavage
- Activated Charcoal
 - Binds with poison in GI tract
 - Back diffusion (I have no idea what this means and she didn't say)
 - If you put chocolate in with the charcoal they'll drink it down (usually)

Ingestions: Specific issues

- Hydrocarbons
 - Careful gastric emptying
- Caustic agents
 - Acids: Coagulative necrosis, pyloric spasm
 - Alkalis: Liquefactive necrosis
- Specific treatments
 - Digibind for digoxin
 - Charcoal for lots of substances

Injury Prevention: Infancy Developmental considerations

- Increased mobility
 - Falls

- Burns
- Drowning
- Suffocation
- Strangulation
- Motor Vehicle Crashes: proper placement and restraint
- Oral exploration: poisoning and choking can result

Injuries in Infants (misc)

- When they go to bed, should have just a sheet....no blankets or bumper pads, no stuffed animals.
- Kids can drown in toilets and buckets and diaper pails
- Obviously bathtubs and such, even showers

SIDS

- 7000 Cases Annually
- Occurs mostly in males
- Occurs mostly at night
- Occurs mostly in the prone position
- BACK TO SLEEP

Injury Prevention: Toddler developmental considerations

- Increased mobility within home
 - Falls
 - Poisoning
 - Burns
 - Drowning
- Motor vehicle crashes

Injuries in Toddlers: Burns

- Risk factors
 - Water heaters too high can lead to scalding
 - Interest in fire
 - Child abuse: glove burns (hands or feet). 10-20% of child abuse cases involve burns
- Assessment
 - Rule of Nine VS. Lund Browder...use Lund Browder on kids b/c child's head occupies a larger area than the lower limbs. A child's palm = 1% of area. Don't need to memorize this, just know there is a different chart.

Injury Prevention: Preschoolers Developmental Considerations

- Increased mobility outside of home
 - Ped vs auto
 - Pool drownings
 - Burns
- Increased independence: Unrestrained passenger

Injury Prevention: School Age

- Neighborhood exploration
 - Ped/bike vs auto
 - Burns
 - Firearms
 - Assault

School Age Injury Prevention (cont'd)

- Sports related injuries
- Risk taking behavior

Injury Prevention: Adolescents

- Teen brain doesn't understand risk; part of brain that understands risk is not fully formed until age 25.
- 4x as likely to be in an auto accident, and 3x as likely to die as a result.
- Overestimation of abilities → drowning
- Risk taking behavior → motor vehicle crashes
- Sporting injuries
- Homicide/suicide

Adolescents: Other issues

- Teen pregnancy
- Substance abuse
- Foster homes
- Runaway/Homeless Teens
- Emancipation...if someone is pregnant they are emancipated.

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