

Age-Specificity in Patient Care

RSPT 1191

Age-Specific Issues

- Competencies
- Safety
- Education
- Hospitalization considerations
- Patient vs. patient/care giver situations

Education Requirements

- More and more, healthcare providers are being required to provide and document competencies in age-specific care
- Many hospitals have established Interdisciplinary Teams
- Driven by The Joint Commission and Medicare

Education Requirements

To properly educate patients, we must

- recognize different learning styles
- understand the psychosocial needs of different age groups
- use this information to convey the message
- test the patient

Learning Styles

- Recognize and respect your patients' learning style
- "Gestalt" learners need to see the whole picture first; then work out the details
- "Visual" learners find demonstrations, pictures and diagrams far more accessible than words

Learning Styles

- "Stream-of-consciousness" learners may catch on better if you tell the story of a typical patient, adding variations to fit the individual
- "Concrete" learners do well if you give them a set of rules
- "Hands-on" learners don't trust their ears; they want to handle something to see how it works

Learning Styles

- Explain things in different ways and use several methods that reinforce each other
- Verbally explain...
- Use visuals...
- Encourage questions...
- Follow up...

Testing

- To measure the success of teaching
- Set S M A R T goals
 - Specific
 - Measurable
 - Attainable
 - Reasonable
 - Time oriented
 - Measure outcomes

Testing

- “Yes, I understand” may mean “No, I’m confused, but I know you don’t have the time to explain it again”
- Have patients explain your explanation in their own words
- If possible, have the patient demonstrate

General Tips

- Be professional
- Use examples and analogies
- Minimize medical terminology
- Use familiar concepts, not just scientific ones
- Use a positive approach
- Focus on what your patient must do, and not do, to have a better outcome
- Listen to the concerns of patients and families

Age-Specific Care

Primary & Secondary Populations

Primary

- If you provide care across the lifespan, you should be competent in dealing with all age groups
- If you provide care to only one age group, your competencies need only reflect that group

Secondary

- Should also be familiar with issues of the populations associated with your primary age group

The Pediatric Population

General Care Issues

- This group is unique physiologically, psychologically and developmentally
- Infants and children are *not just small adults*
- Significant differences also exist between the various age groups in the pediatric population

Physiologic Considerations

- A normal healthy 7 lb. newborn
 - 1/3 length
 - 1/9 BSA
 - 1/20 weight
- Significant differences exist in body systems and vital signs

Normal Ranges for Vital Signs in Infants and Children		
Age-Specific Heart Rates		
AGE	RATE (Mean per min.)	RATE (Range, per min.)
0-24 hours	110	100-150
1-7 days	133	100-175
2-30 days	163	115-190
1-3 months	154	124-190
3-6 months	140	111-178
6-10 months	140	112-177
1-3 years	120	98-163
3-5 years	98	85-152
6-8 years	90	75-115
8-12 years	79	65-107
12-16 years	75	55-102
Age-Specific Respiratory Rates		
AGE	RATE (per min.)	
Preterm infant	50-85	
Newborn infant	30-50	
2 years	24-30	
6 years	22-28	
10 years	20-26	
12 years	18-24	
Adult	16-22	
Age-Specific Blood Pressure Readings		
AGE	READING	
Newborn	5/5	
0 years	8/5	
1 year	9/6	
2 years	10/6	
3 years	10/6	
4 years	10/6	
5 years	10/6	
6 years	10/6	
7 years	10/6	
8 years	10/6	
9 years	10/6	
10 years	10/6	
11 years	10/6	
12 years	10/6	
13 years	10/6	
14 years	10/6	
15 years	10/6	

Body Systems

- Respiratory
 - Respiratory failure one of the most common causes of emergencies
 - More sensitive to respiratory alterations
 - Hypoxemia as a response
 - Sensitivity due to differences in anatomy and physiology

Body Systems

- Cardiovascular
 - Oxygen reserve is limited
 - Anything affecting oxygen delivery or consumption can lead to compromise
 - Tachycardia is common and normal in the compromised pedi patient
 - Bradycardia is an ominous sign of pending cardiac arrest

Body Systems

- Cardiovascular
 - With any alteration of heart rate - assess the respiratory system first
 - cardiac dysfunction is most commonly triggered by respiratory failure
 - Also monitor BP
 - normal BP may not rule out problems, but may be an indicator of a failure in compensation and possible cardiac arrest

Body Systems

- Neurological
 - More susceptible to neuro injuries
 - Spinal cord injuries less common
 - Neuro injury is high risk, but if Glasgow score is 5-8 mortality is lower than with adults
 - Aggressive resuscitation is warranted

Body Systems

- Hepatic
 - Liver is proportionately larger
 - Meds may have prolonged effect

Body Systems

- Thermoregulation
 - Infants and children have larger BSA in relation to weight
 - Relatively small amount of subcutaneous fat and poor vasomotor control
 - 75% of heat loss is through head
 - Infants seldom shiver
 - Stress of hypothermia can be detrimental

Infants: 0-12 months

Psychosocial Development

- These patients experience the world solely through their senses
- Distress occurs when needs are not met, or if they sense fear in those around them
- Respond to rocking, cuddling, cooing and smiling
- Research indicates that parental anxiety is transferred to the child

Infants: 0-12 months

Educational Needs

- Obviously, most education is directed toward parents
- Parent or primary care giver should be present and involved in toddler's care

Toddlers: 1-3 years

Psychosocial Development

- Progressing through the stage of autonomy vs. self-doubt
- Strongly independent one minute, then needy and dependent
- Individuality becomes more apparent – the psychological goal is autonomy
- Prone to separation anxiety; may become severely stressed

Toddlers: 1-3 years

Psychosocial Development

- Should be allowed to keep special toys, pajamas, etc.
- Limited coping skills and limited ability to express themselves
- May actually comprehend more than we know, but can't communicate due to limited language skills
- Work with parents to avoid disrupting routines
- Work with parents to determine how the child acts when afraid or in pain
- Know where child is with other developmental milestones

Toddlers: 1-3 years

Educational Needs

- Parent or primary care giver should be present and involved in toddler's care
- Child should be involved in all interactions and communications
- Explanations of procedures and equipment should be simple and short

Toddlers: 1-3 years

- Allow toddlers to handle equipment when appropriate (i.e., stethoscope)
- Using play and toys to "act out" explanations may be effective
- Give toddlers control over some aspects of their care – allow them to make choices

Preschoolers: 4-5 years

Psychosocial Development

- Developing true independence; but may regress to dependency due to situation
- Have strong fears of pain and/or disfiguration - may act out these fears with anxiety, hostility or aggression
- May develop unwarranted guilt feelings
- Have longer attention span and are can understand a little about how their bodies work if given simple explanations

Preschoolers: 4-5 years

Educational Needs

- When possible, use visual aids and "act out" procedures to involve the child in learning activities
- Provide play materials to help explain procedures or treatments
- Again, when appropriate, let the patient handle equipment

Preschoolers: 4-5 years

- Relate procedures to something with which the child is familiar
- Explain things simply, then ask the child to explain his or her understanding
- Give the patient a chance to demonstrate his or her understanding

School Age: 6-12 years

Psychosocial Development

- This stage is sometimes called the “quiet years” – child is striving for approval and to be “good”
- May not voice their fears or complain of pain
- Have an expanded vocabulary and interact well with others
- Interested in learning and are taking more responsibility for their own care and actions

School Age: 6-12 years

- May still exhibit separation anxiety – not only from parents but from school friends, as well
- It is important to allow for as much individualization and self-care as possible

School Age: 6-12 years

Educational Needs

- Explanations can now be more complex and conversations can involve more critical thinking
- Explain all procedures and be honest about any pain or discomfort involved
- May begin preparing the patient several days before a hospitalization or procedure, as compared to several hours for younger children

Adolescence: 13-19 years

Psychosocial Development

- Probably the most challenging and complicated period of life
- More changes – physical and psychological – than in any other stage
- Behavior fluctuates from dependence to independence, idealism to realism and confidence to uncertainty
- Able to verbalize and understand most adult concepts

Adolescence: 13-19 years

- Beginning to build their theories about philosophy, morality, love and the adult world
- Able to think logically and abstractly
- Have developed a longer attention span
- Question authority
- Have strong need to “fit in” with their crowd
- Prefer to be with those of their own age
- Want to be independent of their parents, but realize this is economically impossible

Adolescence: 13-19 years

Educational Needs

- Respect the need for privacy
- Explain all procedures thoroughly, including possible discomfort, pain, etc.
- Explain all expectations and restrictions
- Involve both the adolescent and the parents in discussion about care
- Respect the patient as an individual, separate from parents

The Adult Population

Young Adult: 20-45 years

Physical Development

- At their maximum peak of efficiency; starting a slow, but inevitable decline
- Accidents and physical stressors e.g. lack of sleep and substance abuse are the most common source of disabling biophysical problems

Young Adult: 20-45 years

Cognitive Development

- At their maximum ability to acquire and use knowledge
- These patients have a tremendous potential for problem solving and both critical and creative thinking

Young Adult: 20-45 years

Psychosocial Development

- Basically, a fairly healthy population
- Primary goals
 - Intimacy
 - Mate selection
 - Marriage and its adjustments
 - Starting a family/raising children
 - Home management
 - Career launching
 - Civic responsibility

Young Adult: 20-45 years

Psychosocial Development

- Trying to enter into and manage multiple roles
- Conflict between family and career
- Major self-concept theme is "I can handle it"
- Expect medical problems to be "fixed" with little or no downtime

Young Adult: 20-45 years

Hospitalization concerns

- Most frequent acute conditions
 - Minor accidents
 - Drug abuse
 - Respiratory infections
 - Influenza
 - Gastroenteritis
 - Urinary tract infections
 - Minor surgery
- Illness is seen as a disruption in life activities and is treated as a situational crisis

Young Adult: 20-45 years

Hospitalization concerns

- Forced dependency and treatment are frustrating
- May exhibit impatience with healing process
- Motivation is recuperation and resuming life activities
- Effect of hospitalization on job and family is a major concern

Young Adult: 20-45 years

Educational Needs

- Provide *thorough* explanations and informed consent
 - they pride themselves in their decision-making capabilities
- This age group has strong need for control – include them in all care related discussions
- Family is the primary social institution, and should be involved as much as possible

Middle Aged Adult: 45-65 years

Physical Development

- Structural and functional changes are now more obvious
- First noticeable signs of aging
 - dry skin and wrinkles
 - thinning and graying hair
 - inches on the waist and hips
- Most will notice declining muscle strength and agility and will make small compensatory changes

Middle Aged Adult: 45-65 years

Physical Development

- While these changes are noticeable, changes in vital organs often go unnoticed
- Health care providers should help patients assess their lifestyle

Middle Aged Adult: 45-65 years

Cognitive Development

- Adult intelligence is affected by education, social class, illness, personality and motivation
- Those with above average IQs, who have more formal education and have continued to use intellectual processes will demonstrate greater increases in intelligence throughout adulthood
- Some may fear becoming forgetful, but no real decline in memory has been demonstrated until old age

Middle Aged Adult: 45-65 years

Psychosocial Development

- More prone to chronic health problems
- Condition is determined more by how they feel than by chronological age
- Tend to be better established in career and family roles and a sense of productivity at work and creativity in living are important developmental components
- Are balancing several roles in family, career and community

Middle Aged Adult: 45-65 years

Psychosocial Development

- This stage is often referred to as the “payoff years”
- Experiencing maximum influence, heightened self-perception, self-approval and self-direction
- These patients are in mature family relationships and may be adjusting to aging parents and launching teenage children
- Taking on more social and civic responsibility
- More secure in career and family

Middle Aged Adult: 45-65 years

Hospitalization concerns

- Potential for family dysfunction with hospitalization
- Hospitalization may disrupt occupational goals
- Hearing and vision problems as well as chronic illnesses may be emerging

Middle Aged Adult: 45-65 years

Educational Needs

- See illness as disruption of life and a possible threat to family and/or career
- Require very thorough explanations
- Need information on risk factors and chronic illnesses
- Allow these patients to make their own decisions about care and health

Middle Aged Adult: 45-65 years

- Stress the need for regular medical attention
- Provide information on life style behaviors
- Be aware of hearing and vision problems and treat accordingly
- Allow verbalization – be a good listener

Aged Adult: over 65 years

Physiology of Aging

- Onset and course of aging are variable – some are “old” at 55, some are “young” at 80
- Decline is inevitable as body cells demonstrate decreased ability for cellular division and repair, independent of stress, trauma and disease

Aged Adult: over 65 years

Cardiovascular System

- Prone to cardiac disease
- Organ perfusion and compensatory regulation are decreased
- Atherosclerotic changes often present
- Heart valves may begin to calcify
- Increased chance of myocardial irritability and left ventricular hypertrophy
- Cardiac output is decreased due to increased BP and decreasing HR

Aged Adult: over 65 years

Respiratory System

- TLC decreases
- A-P diameter increases; diaphragm flattens
- Chest wall rigidity increases
- Alveolar surface area decreases
- PaO₂ decreases
- All changes are aggravated by smoking

Aged Adult: over 65 years

Central Nervous System

- Decreases in neuronal density and conduction - reflexes are slower
- Sympathetic nervous system response decreased
- Higher incidence of organic brain syndrome, CVAs and multi-infarct dementia

Aged Adult: over 65 years

Gastrointestinal System

- Salivation, peristalsis and hepatic blood flow are all decreased
- Appetite is decreased; weight loss follows
- Absorption of oral meds and nutrients is decreased; therapeutic ranges may be difficult to obtain

Aged Adult: over 65 years

Renal System

- Decreased glomerular filtration; leads to decreased med clearance and fluid and electrolyte imbalances
- Sphincter weakening and decreased bladder capacity and muscle tone lead to increased chance of urinary incontinence

Aged Adult: over 65 years

Orthopedic

- Bone mass greatly decreases
- Increased risk of pathologic fractures, pain and skeletal deformities
- Care should be taken to protect and pad these patients

Aged Adult: over 65 years

Endocrine/metabolic

- BMR decreases at a rate of 1% per year after age 30
- Higher risk for NIDD

Aged Adult: over 65 years

Body composition

- Greater risk of hypothermia
- Epidermis and collagen also atrophy, increasing risk for developing skin breakdowns and decubitus ulcers

Aged Adult: over 65 years

Senses

- All are reduced
- Vision
 - Eyesight deteriorates and may be exacerbated by cataracts or macular degeneration
 - Make large print info available
 - Always identify yourself
- Hearing
 - Often deteriorates; should be routinely assessed
 - Hearing aids should be checked regularly
 - Provide CCTV/video when possible

Aged Adult: over 65 years

Senses

- Smell and taste
 - Decreasing senses leads to decrease in taste and a corresponding decrease in appetite and weight loss
 - Detecting food spoilage is difficult
 - May also be less likely to notice smoke
- Touch
 - Decreased sense of hot and cold
 - Less likely to be aware of pressure points

Aged Adult: over 65 years

Pharmacologic Considerations

- Extra care should be taken to monitor all meds
 - May be taking multiple meds from different providers
- Monitor for the twin possibilities of malabsorption and toxicity
 - Especially in patients with renal or hepatic anomalies
- Diseases can affect organs responsible for drug metabolism and excretion

Aged Adult: over 65 years

Hospitalization Considerations

- Explain and ensure understanding of Advance Directives
- Obtain a thorough socioeconomic history to assist with discharge planning
- Allow time for thorough orientation to the environment
- Assess for risk of falls and take appropriate preventive actions
- Encourage participation in all areas of care
- Allow patient and family to verbalize feelings

Aged Adult: over 65 years

Psychosocial Development

- Fastest growing segment of our population
- Final task in psychological development is to determine between integrity and despair
- Adjustment to retirement is a major event
- Friendship and family bonds are central to well-being

Aged Adult: over 65 years

Educational Needs

- Explain and ensure understanding of Advance Directives
- Allow time for thorough orientation to the environment
- Be specific in explanations
- Encourage active participation in all areas of care

Aged Adult: over 65 years

- Allow patient and family to verbalize feelings
- Obtain a thorough socioeconomic history to aid in discharge planning
- Help patient assess his or her risk factors and take appropriate measures
- Assist patient with setting up schedules