Pediatric Burn Injury Life Care Planning

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Pediatric Burn Injuries

- Severe childhood burn injuries often require a lifetime of care.
- Issues to consider:
  - Location of burn injuries, grafts, donor sites
  - Burns over joints – range of motion problems
  - Amputations
  - Injury to the lungs
  - Cognitive/learning problems
  - Body image issues/Social difficulties
  - Post Traumatic Stress Disorder
Pediatric Treatment

- 15-20% of body surface is considered a major burn in children.
- Smaller body size results in greater relative body surface area burned.
- Their skin is more delicate.
- There are differences in their airways.
- Their organs are closer to the surface and have less fat protection.
- Burns to the face, hands & perineum are problem areas.

Pediatric Treatment

**Epidemiology**

- Thermal burns are the 2nd most common cause of traumatic pediatric death in American children.
- Thermal burns usually occur at home
- Scalding injuries are most common in children 0-5 years and especially in those under age 3.
- Scalds occur most often in the kitchen at home.

Complications

- Types of infections in burn patients
  - Burn wound invasion/sepsis, cellulitis, pneumonia, suppurative thrombophlebitis, miscellaneous nosocomial infections
- Organisms causing burn wound invasion
  - Pseudomonas-45%, mycotic 19%
  - Other gram negatives-16%, mixed bacterial-8%
  - Mixed bacterial/mycotic-10%, Staph-1-3%
- Nutritional problems – high metabolic rate
Problems Burn-Injured Children Experience

- Fear of medical professionals
- Separation anxiety
- Poor understanding of injuries and need for painful therapies and dressing changes.
- Loss of function and scars which make them look different.
- Pain!!!!
- Itching
- Sleep Disturbance

Problems Children Experience Post-Hospitalization

- Isolation
- Rejection
- Emotional Instability
- Stress at Home & School
- Bullying
- Anxiety
- “I’m the only one that looks like this.”

Types of Pain

- Pediatric patients experience three types of pain:
  - Procedural pain (Acute or short term pain)
  - Background pain (Ongoing-acute pain)
  - Breakthrough pain
  - Emotional pain
Psychological Treatment Strategies

- Avoidance
- Relaxation
- Operant techniques
- Information
- Reappraisal
- Participation

Psychological Treatment Strategies

- Hypnotic Analgesia
  - Hypnosis has been shown to be a powerful technique to induce analgesia and reduce anxiety related to medical procedures for both adults and children
  - Hypnotic analgesia combined with standard pharmacologic interventions has been shown to provide greater pain reduction
  - Professionals will not control the child’s mind

Psychological Treatment Strategies

- Guided Imagery
  - There is no hypnotic induction and suggestions are typically limited to what the child is able to visualize
  - Pain reduction is most likely achieved directly through relaxation and distraction
  - Particularly well suited for young children
  - Guided imagery is effective with very young children and toddlers, particularly when the participating adult feels uninhibited and free to use his or her imagination as well
### Psychological Treatment Strategies

- **Distraction**
  - Many people have used distraction to support children in everyday situations that are fearful or upsetting.
  - In burn unit, distraction techniques can provide successful reduction in both pain intensity and anxiety level.
  - It should be noted that this technique is most powerful when initiated by a person not directly involved in wound care, such as, child life specialists, family members, and volunteers.

### Psychological Treatment Strategies

- **Relaxation** successfully reduces tension and discomfort associated with medical procedures for both children and adults.
- It can increase the pts level of comfort and can even increase range of motion by decreasing muscle tightness.
- The intensity of burn pain can overwhelm relaxation efforts and the need for repeated training and rehearsal can be given by a good trauma therapist.

### Psychological Interventions

- Play Therapy
- Family Therapy
- Group Therapy
- Hypnotherapy
- Psychiatric Care
- Burn Camp
- Trauma Support Group
- Massage Therapy
Parent Experiences & Needs

• Parents often feel guilty and assume blame regardless of their actual involvement in the injury.
• Mothers often exhibit symptoms of post-traumatic stress disorder
• Often need respite care due to the intensive needs of their burn injured child.
• Need for education regarding the importance of ongoing surgeries and therapies – Case management

Future Surgeries

• Contracture Release
• Reconstruction
• Tissue Expansion
• Dermabrasion
• Occupational & Physical Therapy
• Home Health Care
• Pressure Garments/Splints
• Tutoring
• Mobilization

Pressure Garments & Splints

• Getting child to wear pressure garments is usually a challenge and parents need to be firm.
  – Dress favorite stuffed animal or doll with pressure garments
  – Teach parents and siblings importance of garments and splints
  – Do a school re-entry session and teach peers about need for garments and splints
  – Reward good behavior
• Parents need to be dedicated to helping child cope with garments and splints
### Pediatric Educational/Vocational Issues

- NeuroPsych Testing
- Functional abilities assessment
- School Records
- Severely disfigured – may want to suggest private school.
- IDEA
- Vocational evaluation(s) – 16 and perhaps upon completion of high school.

### Comprehensive

- Ages 6-21
- Ages 22-Life Expectancy

### Resources


- Edited by David N Herndon, MD

Total Burn Care is a unique book that considers the complex management of burned patients from injury to rehabilitation. This new edition covers the advances in the treatment of burns as well as the clinical, physical, psychological and social needs of the burn patient. In particular, the book discusses how to devise an integrated treatment program for the optimal recovery and rehabilitation of patients.
Resources

- **Severe Burns**: A Family Guide to Medical and Emotional Recovery By Andrew M. Munster, The Baltimore Regional Burn Center ISBN: 0801846536

- **PRINCIPLES AND PRACTICE OF BURN SURGERY** (2005)
  Juan P. Barret-Nerin, MD and David N. Herndon, MD
  Published by Marcel Dekker, Inc., ISBN 08247545

Resources

- Journal of Burn Care and Research

- Phoenix Society @
  www.phoenix-society.org

Thank you!