Wheelchair Service Delivery Guide

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Objectives

- List the 9 components of the wheelchair service delivery guide
- Describe updates to the literature as it relates to the wheelchair service delivery process
- Compare and contrast the application of the guide to different service delivery models
- Apply the wheelchair service delivery model to a case example
What is Assistive Technology?

- Services, devices, strategies and practices that are conceived and applied to increase, maintain or improve functional capabilities of individuals with disabilities.

Cook and Polgar (2008)

WHO ICF (2002)

HAAT Model
Evidence Based Practice in Assistive Technology

New Conceptual Model for AT Outcomes

Brief History

From RESNA Conference Proceedings to RESNA approved document

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RESNA Wheelchair Service Provision Guide (2011)

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Introduction to Cases
Case 1

• 51 y.o. male
• Full time employment
• 3 hours care / day
• Tetraplegia (34.5 years)
• Power Wheelchair

Case 2

• 38 year old male
• Full time employment
• Paraplegia (5 years)
• Manual Wheelchair

Pre-Guide

• Cook & Hussey’s assistive technology principles and practices (2008)
• The Wheelchair procurement process (2008)
• Guidelines on the provision of in less resourced settings (2008)
Cook & Hussey’s assistive technology principles and practices – 3rd Edition

- Referral and Intake*
- Initial Evaluation
- Recommendation and Report*
- Implementation
- Follow-up*
- Follow-along*

*Funding typically required


The Wheelchair Procurement Process - 2008

- Goal Identification and prioritization
- Final Wheelchair
- Environmental Factors
- Wheelchair Trial
- Outcome Achieved

Mortenson, W. B., & Miller, W. C. (2008)

Guidelines on the provision of in less resourced settings (2008)

- Referral and appointment
- Assessment
- Prescription (selection)
- Funding and Ordering
- Product Preparation
- Fitting
- User training
- Follow-up, Maintenance and Repairs

Armstrong, W., et al. (2008)
Wheelchair Service Provision Guide (2011)

- Referral
- Assessment
- Equipment Recommendation and Selection
- Funding and Procurement
- Product Preparation
- Fitting, Training and Delivery
- Follow-up Maintenance and Repair
- Outcome Measurement

Arlidge, S. et al. (2011)

Post Guide

- A preliminary model of wheelchair service delivery (2009)
- Advances in European AT Service delivery and recommendations for further improvement (2011)
- Satisfaction of users with assistive technology service delivery: An exploratory analysis of experiences of parents of children with physical and multiple disabilities (2014)

A preliminary model of wheelchair service delivery - 2009

- Influences on the process
  - Health Care System
  - Provider
  - Payor
  - Client
  - Supplier
- Components of the WC Service Delivery Process
  - Referral
  - Needs Assessment
  - Device Selection
  - Device Evaluation
  - Device Justification
  - Device Provision and Fitting
  - Education, Counseling and Follow-up
- Appropriateness of Wheelchair
- Outcomes

A preliminary model of wheelchair service delivery - 2009

Advances in European Assistive Technology service delivery... - 2011

- Initiative
- Assessment
- Typology
- Selection
- Authorisation
- Delivery
- Management and follow-up

Advances in European Assistive Technology service delivery... - 2011

- Criteria for good service delivery
  - Accessibility
  - Competence
  - Coordination
  - Efficiency
  - Flexibility
  - User Influence

Steel, E. J. and de Witte, L. P. (2011)
Satisfaction of users with assistive technology service delivery... - 2014

- Initiative
- Assessment
- Selection
- Authorisation
- Implementation
- Management & Follow-up

RESNA Wheelchair Service Provision Guide

Wheelchair Service Delivery Guide (2011)

- Referral
- Assessment
- Equipment
  Recommendation and Selection
- Funding and Procurement
- Product Preparation
- Fitting, Training and Delivery
- Follow-up Maintenance and Repair
- Outcome Measurement
Wheelchair Service Delivery Guide (2011)

- Referral
  - Identification of Need
  - “Referral” to Qualified Professionals
- Assessment
  - Body Structure and Functions
  - Activities and Participation
  - Environment
  - Current Technology
  - Family, Social Support and Caregivers
  - Attitudes towards Disability and technology

Wheelchair Service Delivery Guide (2011)

- Equipment Recommendation and Selection
  - Equipment Trial / Simulation / Consideration
  - Objective Measures
  - Client Funding and Education
  - Documentation
- Funding and Procurement
  - Pre-Determination
  - Ordering and Receiving Equipment
  - Product Preparation

Wheelchair Service Delivery Guide (2011)

- Fitting, Training and Delivery
  - Fitting
  - Training and Delivery
  - Follow-up Maintenance and Repair
    - Training
    - Customization
    - Maintenance
    - Repair
- Outcome Measurement
  - Functional Performance
    - Wheelchair Skills
    - Pressure Analysis
    - Propulsion Analysis
    - Functional Mobility Assessment (FMA)
  - User satisfaction
    - QUEST
  - Quality of life measures
    - PIADS
Outcome Measurement

- Outcome measures evaluate the end result of the assistive technology implementation. (Cook & Polgar, 2008)
  - Functional Performance Measures
  - User Satisfaction Measures
  - Quality-of-Life Measures
- Utilize to modify Service Delivery Program

Does it apply to all models?

- Medical Model
  - Hospital Based Clinic – Inpatient
  - Hospital Based Clinic – Outpatient
  - Private Practice / non-hospital based
- Telehealth/Telehospital
- Federal/State Funding Programs
  - Mobile Clinic
  - Innovative State Funded
  - Department of Veterans Affairs
- International models
  - Ireland “Hub and Spoke” Model
  - Less resourced settings

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Case 1

- Referral
- Assessment
- Equipment Recommendation and Selection
- Funding and Procurement
- Product Preparation

- Fitting, Training and Delivery
- Follow-up Maintenance and Repair
- Outcome Measurement

Case 2

- 38 year old male
- Full time employment
- Paraplegia (5 years)
- Manual Wheelchair
Case 2

- Referral
- Assessment
- Equipment Recommendation and Selection
- Funding and Procurement
- Product Preparation
- Fitting, Training and Delivery
- Follow-up Maintenance and Repair
- Outcome Measurement

RESNA

- Rehabilitation Engineering and Assistive Technology Society of North America (RESNA)
  - www.resna.org
  - Mission: To improve the health and well-being of people with disabilities through technology.
- Certification
  - http://www.resna.org/certification/
  - Assistive Technology Professional (ATP)
  - Seating and Mobility Specialist (SMS)
  - Rehabilitation Engineering Technologist (RET)
References


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