

Bridging the Gap Between Consumer and Products in Rehabilitation Medicine

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Assistive Technology: A Practical, Working Definitions

“Any object or tool that maximizes a person’s independence in activities of daily living.”

(Jacobs, K. 1997)

Expectations of Assistive Technology

- **Will allow the individual to:**
 - **Discharge to home**
 - **Return to independence or prevent further decline**

Expectations of Assistive Technology

- **Will allow the individual to:**
 - **Discharge to home**
 - **Return to independence or prevent further decline in Mobility**



Expectations of Assistive Technology

- **Will allow the individual to:**
 - **Discharge to home**
 - **Return to independence or prevent further decline in**
 - Mobility**
 - Self Care**



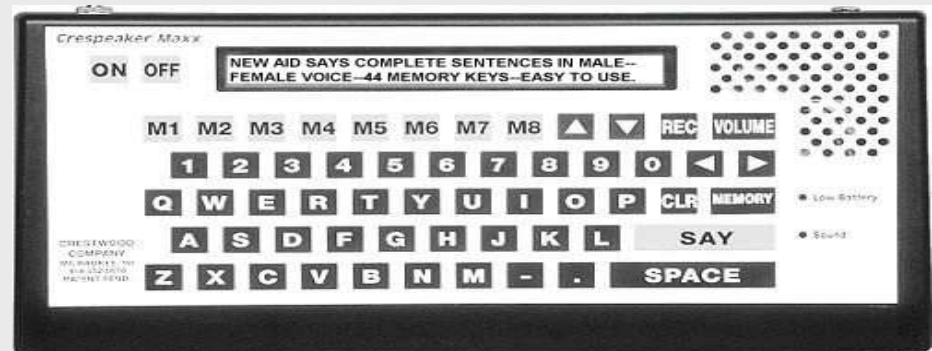
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- Will allow the individual to:
 - Discharge to home
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Mobility

Self Care

Communication



Expectations of Assistive Technology

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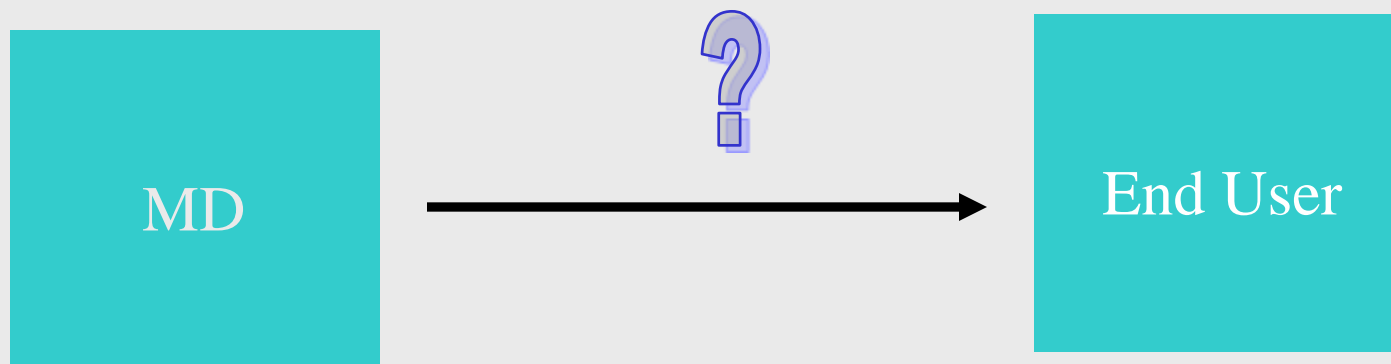
Communication

Leisure

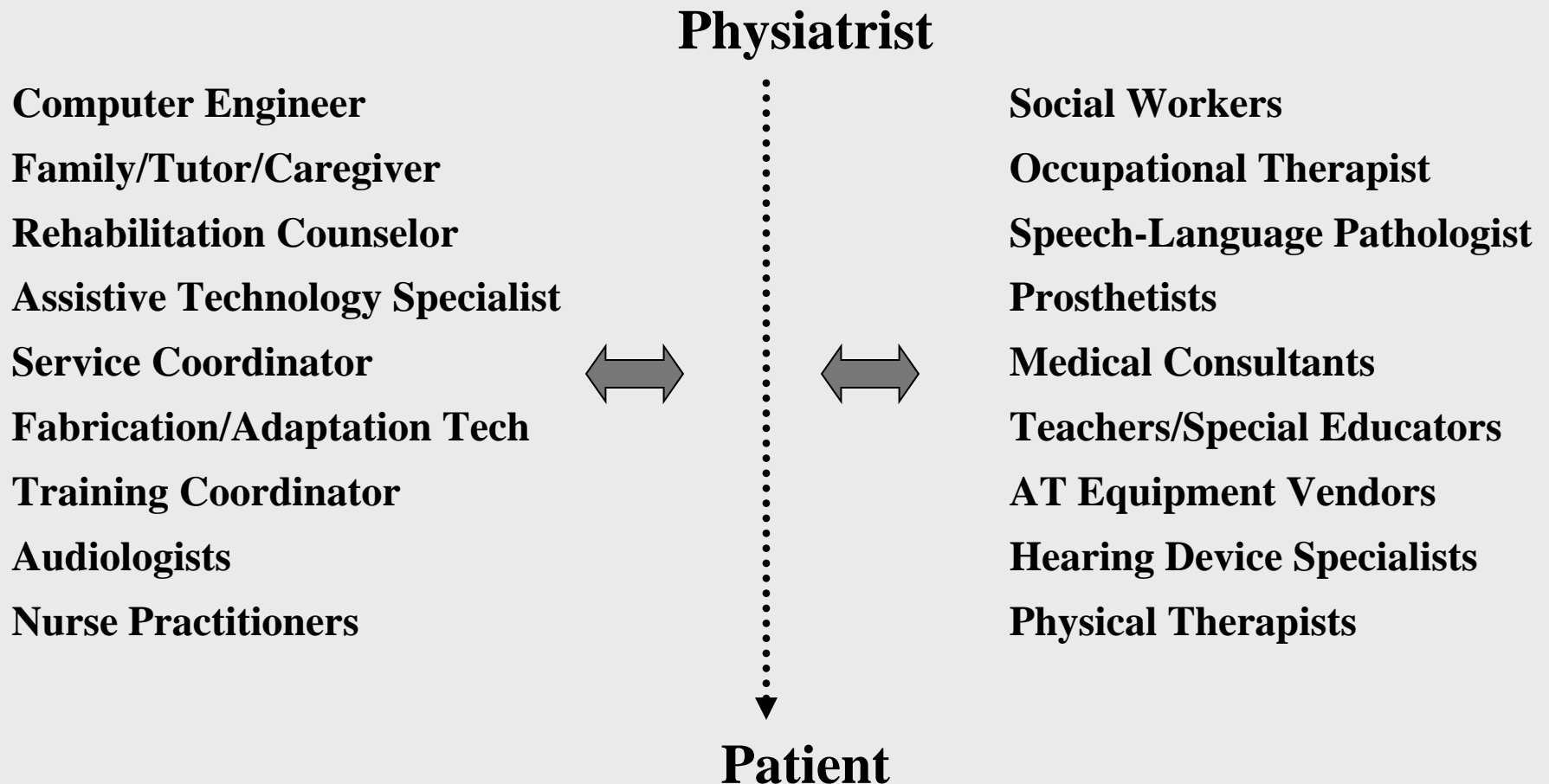
Vocation



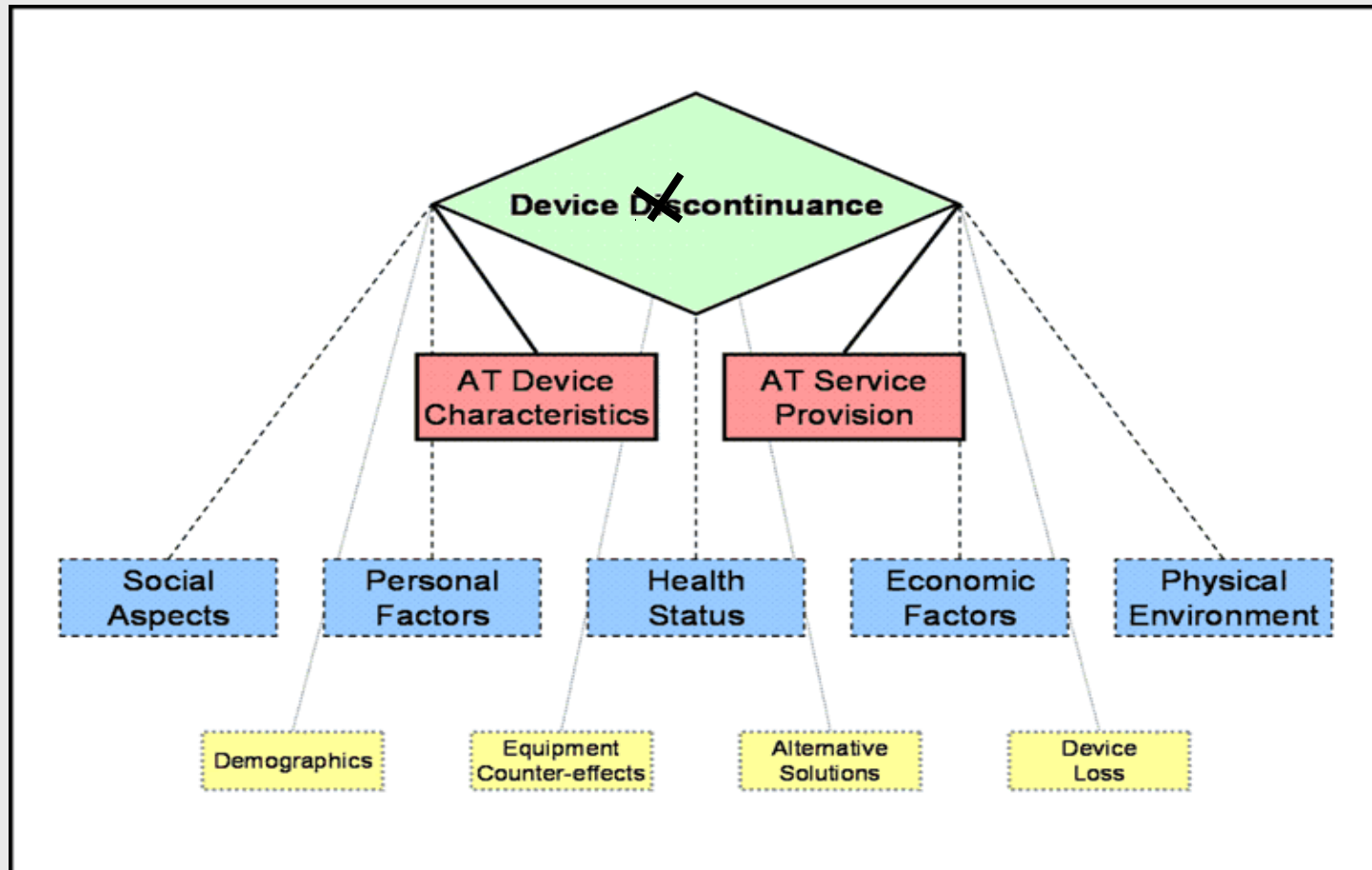
Prescribing Rehabilitation Equipment



The Transdisciplinary Team



Equipment Suitability



Assistive Technology Device Characteristics



A Continuum of Considerations for Assistive Technology for the Mechanics of Writing

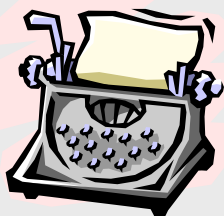


Regular pen or pencil

Pencil or pen with adapted grip

Adapted paper (e.g. raised line, highlighted lines)

Slant board to create slanted writing surface



Typewriter

Portable note taker that interfaces with computer

Computer with word processing software

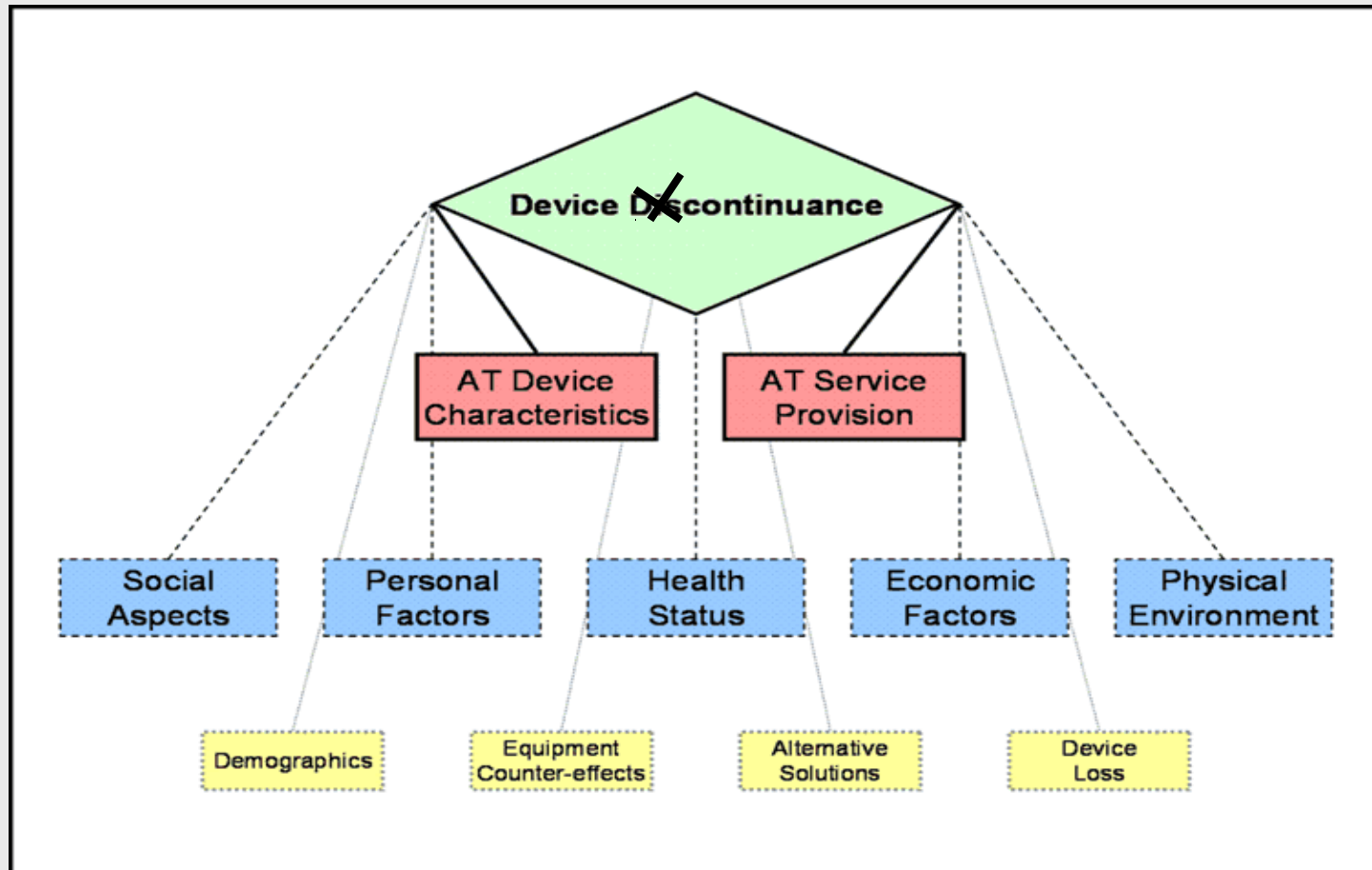


Word prediction/abbreviation expansion software for efficiency

Voice Recognition software

(Adapted by ATTO from WATI, 1998)

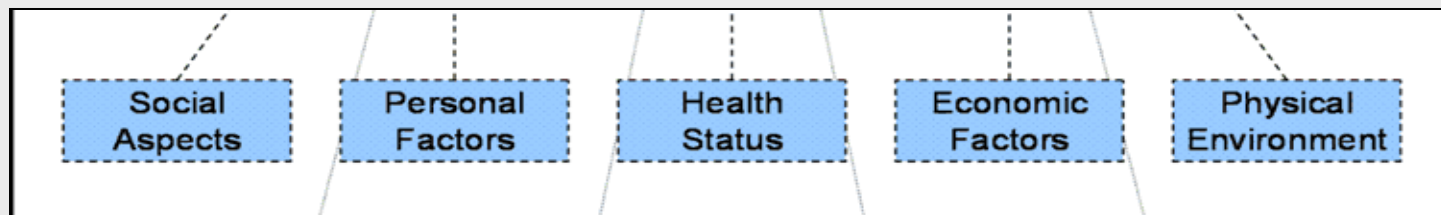
Equipment Suitability



Who pays?

- **User**
- **Insurance**
 - Private**
 - managed care**
 - fee-for-services**
 - Medicare**
 - Medicaid**
- **VA**
- **Grants / Loans**
- **Service Organizations – Lions Club, Easter Seals, etc.**

Equipment Suitability



Culture

Age

Chronic

Rural/City

Support

Gender

Changing

Rent/Own

Motivation

Education

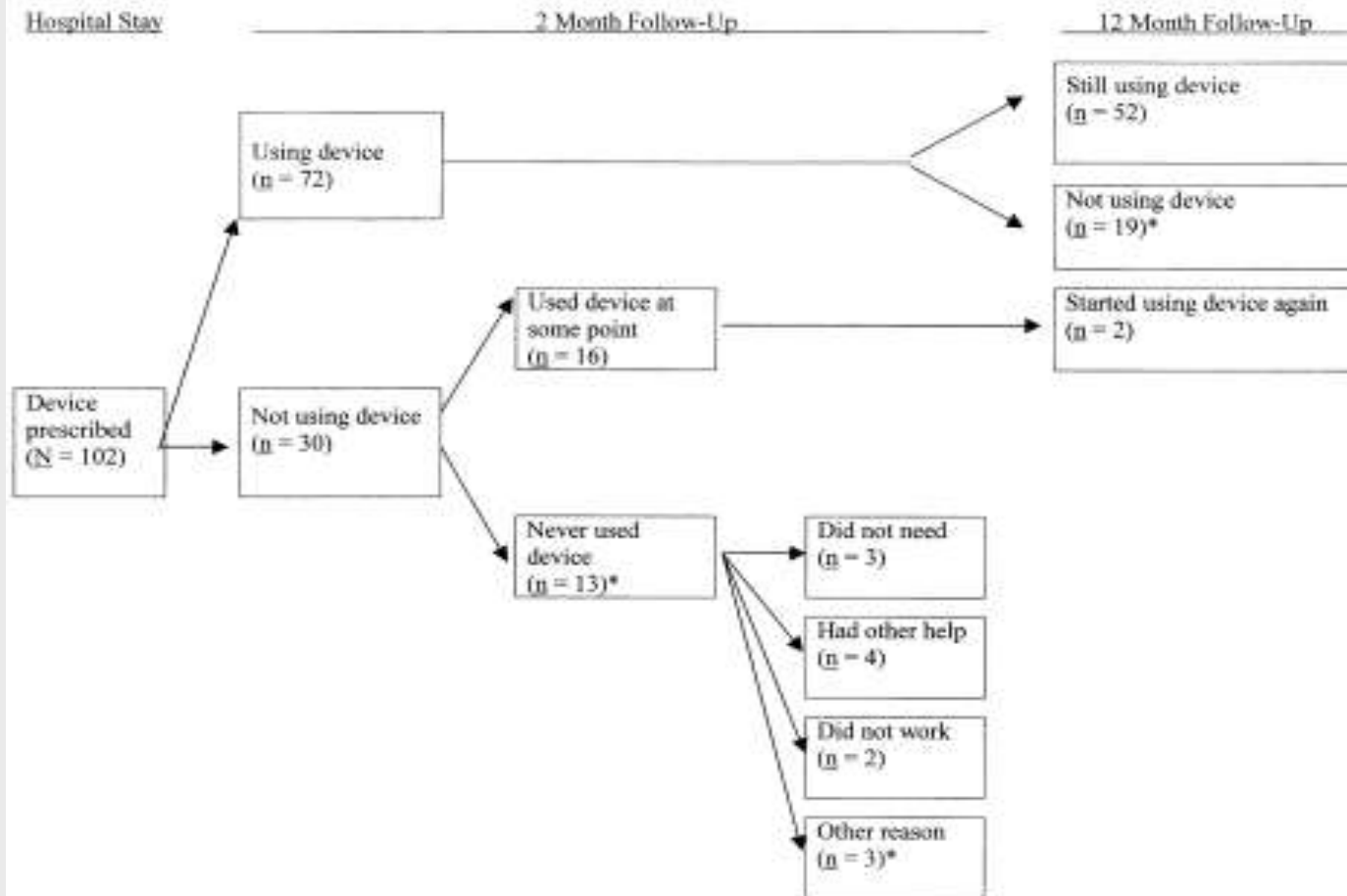
Acute

Stairs

Perception of Self

Diagnosis

Example: Long Handle Sponge



Steps Needed to Issue an Assistive Device

- **Selection of a device for an activity**
- **Site and method of instruction**
- **Time to introduce device during hospitalization**
- **Reinforcement of its use**
- **Written justification to insurance company**

Training- Ensuring Success

- **Repetition is key**
- **Types of instruction:**
 - ❖ **demonstration**
 - ❖ **practicing actual skills in hospital environment**
 - ❖ **written**
 - ❖ **video**
 - ❖ **in home training**

Reinforcement

Transition of skills to community / home environment

Follow-up

Support groups

Refresher training may be necessary

Access to Equipment and Rehabilitation Services

(Bingham and Beatty, 2003)

>50% needed assistive equipment in last 12 months
30% were unable to get needed equipment

40% needed rehabilitation services in last 3 months
>50% did not receive those services

Other resources

- **Cook and Hussey (2007), Assistive Technologies: Principles and Practice (3rd edition): Mosby**
- **Kraskowsky and Finlayson (2001). Factors Affecting Older Adults' Use of Adaptive Equipment: Review of the Literature, American Journal of Occupational Therapy 55,303-310**

Website links

- <http://www.abledata.com/>
- <http://www.ncmedical.com/>
- <http://global.smith-nephew.com/master/6600.htm>