

REPORT PANEL ON LOWER-LIMB ORTHOTICS

Membership:

Chairman: Charles M. Fryer
Recorder: Bradd L. Rosenquist
Members: Dwight Driver
Robert Nitschke
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Melvin Stills
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The first task considered was the definition of the "Current State of the Art" in Lower Limb Orthotics. It was felt that the "Position" paper presented by Melvin Stills serves this purpose accurately.

Major Advances

Mr. Stills cited the following items as significant developments occurring within the last five to ten years:

1. The development of current nomenclature.
2. Applications of plastics and vacuum forming.
3. The availability of prefabricated components.
4. Fracture orthoses.
5. The stress on patient evaluation.
6. Educational requirements for certification.
7. Continuing education as implemented by the American Academy of Orthotists and Prosthetists.
8. The multidisciplinary clinic approach to children's orthotics for certain classes of patients such as those with spina bifida.

"FUNCTIONAL ELECTRICAL STIMULATION" is the only item defined by the panel as being available only through special centers or circumstances.

Items Being Evaluated

Those orthotic devices and/or techniques currently in clinical evaluation are as follows:

1. Biofeedback devices for training.
2. Function Electrical Stimulation Systems.
3. Adjustable AFO foot positioning orthosis (Rancho).
4. Shoe rotator (Glancy).
5. Infant hip joint for treatment of hip dislocation and/or subluxation (Nitschke).

Items Needed

Devices and techniques which are most urgently needed are as follows:

1. Improved materials technology and applied design as they affect function, cosmetics, and cost.
 - a. Improved joint mechanisms to aid sitting and standing (Example: Bilateral HKAO'S).
 - b. Sensory feedback mechanisms.
 - c. Dampening of motion (Example: CP).
2. To develop better utilization of the established channels of communications between all disciplines involved in patient services.
3. A method of bracing to maintain joint integrity under pathological and normal (Example: sports) conditions.

Inherent Problems in Delivery

Three areas, either singularly or in combination, are cited as presenting problems in the delivery of new devices and services.

1. Evaluation of new devices.
2. Financing.
3. Education.

Recommendations

It is the panel's intent to recommend only those items felt to be of major significance. The order in which they are listed does not indicate perceived importance.

1. "Standards" should be developed by the Orthotics Profession as is currently taking place through the ASTM and the FDA for prostheses.
2. A workshop be convened to determine responsibility for the dissemination of information to the following groups:
 - a. Physicians.
 - b. Third party payers.
 - c. Allied Health Professions.
 - d. The General Public.

The panel specified those groups responsible for the dissemination of information to be:

- a. American Academy of Orthotists and Prosthetists.
 - b. "The Universities."
 - c. American Academy of Orthopaedic Surgeons.
 - d. The Congress of Physical Medicine and Rehabilitation.
 - e. Orthotists.
 - f. Federal Agencies (V.A., R.S.A.).
3. Mandatory continuing educational requirements should be established, and an organization *be specified* to have this as their responsibility.
 4. A system of measurement, modification, and communication needs to be developed to facilitate central fabrication in lower-limb orthotics. The purpose is to place the responsibility of decision making as concerns patient management, orthotic design and fit on the orthosis. The function of the central fabrication laboratory will be limited to fabrication only.
 5. A more comprehensive training program is needed for orthotists in the area of shoe and foot orthotic problems. The *shoe* is recognized as an integral part of a lower-limb orthotic system.
 6. A program of national scope should be established for the collection of, evaluation of, and dissemination of information on new devices and techniques.