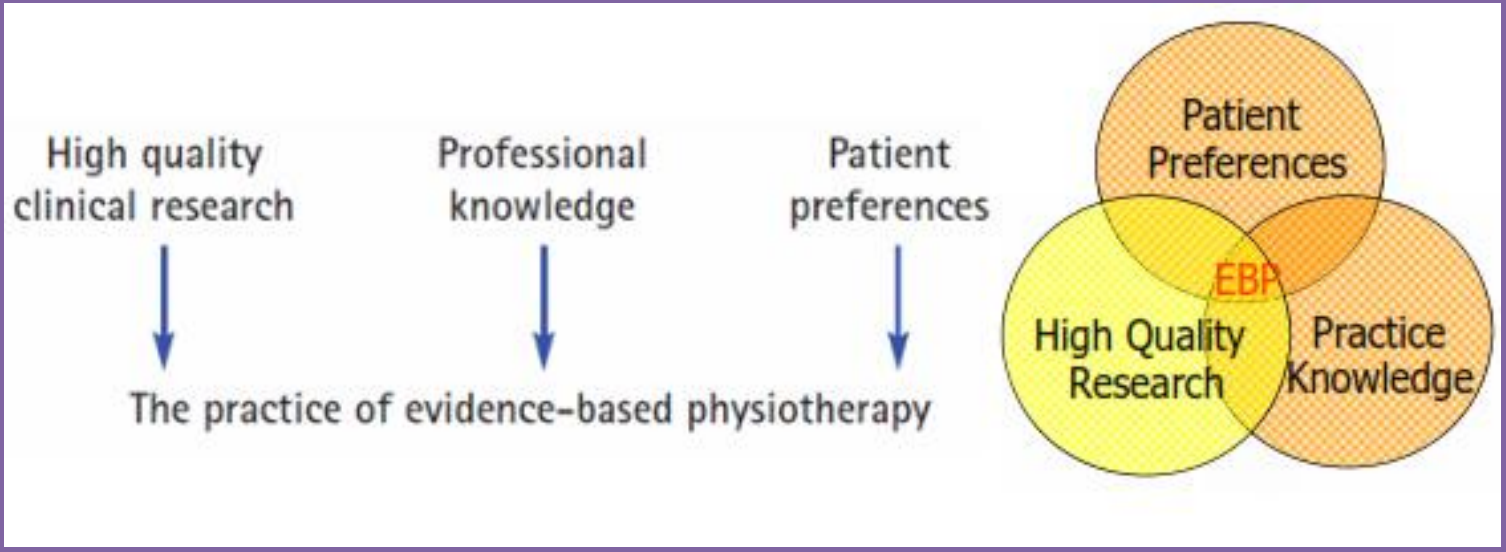
Evidence-Based Practice

GOOD PRACTICE

- Available **research** & clinical studies (best clinical research)
- Experiences of **expert therapists** (expertise)
- **Patient preferences**

EBP

In evidence-based practice we need to '**integrate** the **best external evidence** with **individual clinical expertise** and **patients' choice,**



CLINICAL DECISION MAKING & EBP

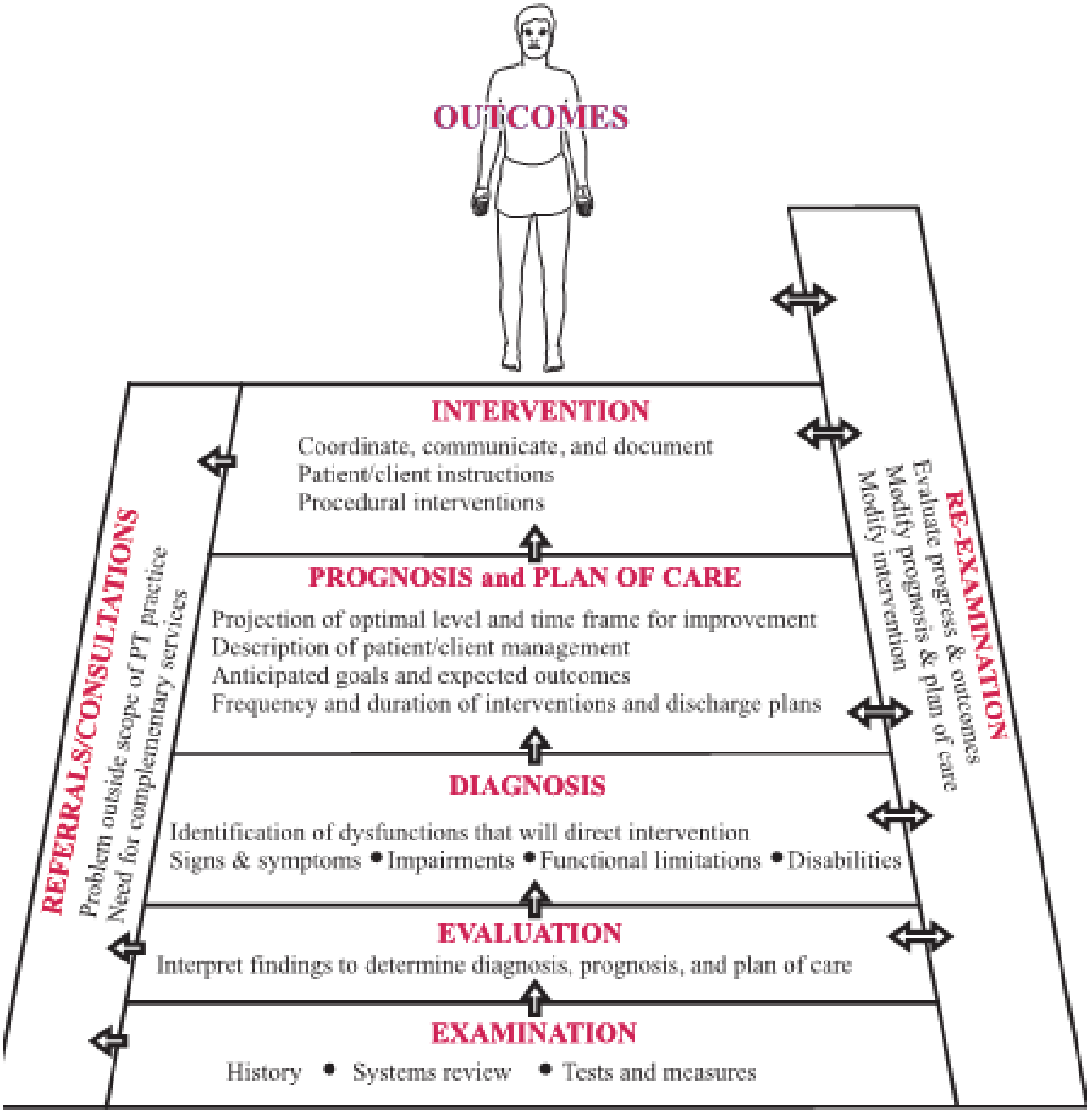
- Clinical decision-making brings together information from;
  - high quality clinical research,
  - patient preferences,
  - information from physiotherapists about cultural, economic and political context.

5-STEPS IN EBP

1. Convert information needs into answerable questions.
2. Track down the best evidence to answer those questions.
3. Critically appraise the evidence for its validity, impact and applicability.
4. Integrate the evidence with clinical expertise and with patient's values and circumstances.
5. Evaluate the effectiveness and seek ways of improvement for next time.

A Patient Management Model

1. A comprehensive *examination*
2. *Evaluation* of data collected
3. Determination of a *diagnosis* based on impairments of body structure and function, functional limitations (activity limitations), and disability (participation restrictions)
4. Establishment of a *prognosis* and plan of care based on patient-oriented goals
5. Implementation of appropriate *interventions*


OUTCOMES
INTERVENTION
Coordinate, communicate, and document
Patient/client instructions
Procedural interventions
PROGNOSIS and PLAN OF CARE
Projection of optimal level and time frame for improvement
Description of patient/client management
Anticipated goals and expected outcomes
Frequency and duration of interventions and discharge plans
DIAGNOSIS
Identification of dysfunctions that will direct intervention
Signs & symptoms • Impairments • Functional limitations • Disabilities
EVALUATION
Interpret findings to determine diagnosis, prognosis, and plan of care
EXAMINATION
History • Systems review • Tests and measures
REFERRALS/CONSULTATIONS
Problem outside scope of PT practice
Need for complementary services
RE-EXAMINATION
Evaluate progress & outcomes
Modify prognosis & plan of care
Modify intervention

Examination

- Examination is the systematic process by which a therapist obtains information about a patient's problem(s) and his or her reasons for seeking physical therapy services.

- The patient's health **history**
- A relevant **systems review**
- Specific **tests and measures**

History

The history is the mechanism by which a therapist obtains an *overview* of current and past information (both subjective and objective) about a patient's present condition(s), general health status (health risk factors and coexisting health problems), and why the patient has sought physical therapy services. It has been shown in a multi-center study that patients seen in outpatient physical therapy practices have extensive health histories, including use of medications for a variety of medical conditions (e.g., hypertension, pulmonary disorders, and depression) and surgical histories (e.g., orthopedic, abdominal, and gynecological surgeries).[13]

BOX 1.9 Information Generated from the Initial History

Demographic Data
- Age, sex, race, ethnicity
- Primary language
- Education

Social History
- Family and caregiver resources
- Cultural background
- Social interactions/support systems

Occupation/Leisure
- Current and previous employment
- Job/school-related activities
- Recreational, community activities/tasks

Growth and Development
- Developmental history
- Hand and foot dominance

Living Environment
- Current living environment
- Expected destination after discharge
- Community accessibility

General Health Status and Lifestyle Habits and Behaviors: Past/Present (Based on Self or Family Report)
- Perception of health/disability
- Lifestyle health risks (smoking, substance abuse)
- Diet, exercise, sleep habits

Medical/Surgical/Psychological History
- Previous inpatient or outpatient services

Medications: Current and Past

Family History
- Health risk factors
- Family illnesses

Cognitive/Social/Emotional Status
- Orientation, memory
- Communication
- Social/emotional interactions

Current Conditions/Chief Complaints or Concerns
- Conditions/reasons physical therapy services sought
- Patient's perceived level of daily functioning and disability
- Patient's needs, goals
- History, onset (date and course), mechanism of injury, pattern and behavior of symptoms
- Family or caregiver needs, goals, perception of patient's problems
- Current or past therapeutic interventions
- Previous outcome of chief complaint(s)

Functional Status and Activity Level
- Current/prior functional status: basic ADL and IADL related to self-care and home
- Current/prior functional status in work, school, community-related IADL

Other Laboratory and Diagnostic Tests

Systems Review

A brief but relevant screening of the body systems, known as a *systems review*,[3] is performed during the patient interview as a part of the examination process after organizing and prioritizing data obtained from the health history. The greater the number of health-related risk factors identified during the history, the greater is the importance of the review of systems. The systems typically screened by therapists are the cardiovascular and pulmonary, integumentary, musculoskeletal, and neuromuscular systems, although problems in the gastrointestinal and genitourinary systems also may be relevant.[14,16] This screening process gives a general overview of a patient's cognition, communication, and social/emotional responses. Only limited information on the anatomical and physiological status or function of each system is obtained. Table 1.3 identifies each system and gives examples of customary screening procedures used by physical therapists.

BOX 1.8 Key Questions to Consider During the Initial Examination

- What are the most complete and readily available sources for obtaining the patient's history?
- Is there a need to obtain additional information about the patient's presenting health condition or a medical diagnosis if one is available?
- Based on initial working hypotheses, which of the patient's signs and symptoms warrant additional testing by physical therapy or by referral to another health-care practitioner?
- Do the patient's problems seem to fall within or outside the scope of physical therapy practice?
- What types of specific tests and measures should be selected to gather data about the patient's impairments, activity/functional limitations, or extent of participation and resulting disability?
- Based on scientific evidence, which diagnostic tests have a high level of accuracy to identify impairments, functional deficits, or disability?
- What are the most important tests to do first? Which could be postponed until a later visit with the patient?

TABLE 1.3 Areas of Screening for the Systems Review

System	Screening
Cardiovascular/pulmonary	Heart rate and rhythm, respiratory rate, and blood pressure; pain or heaviness in the chest or pulsating pain; lightheadedness; peripheral edema
Integumentary	Skin temperature, color, texture, integrity; scars, lumps, growths
Musculoskeletal	Height, weight, symmetry, gross ROM, and strength
Neuromuscular	General aspects of motor control (balance, locomotion, coordination); sensation, changes in hearing or vision; severe headaches
Gastrointestinal and genitourinary	Heartburn, diarrhea, constipation, vomiting, severe abdominal pain, problems swallowing, problems with bladder function, unusual menstrual cycles, pregnancy
Cognitive and social/emotional	Communication abilities (expressive and receptive), cognition, affect, level of arousal, orientation, attentiveness/distractibility, ability to follow directions or learn, behavioral/emotional stressors and responses
General/miscellaneous	Persistent fatigue, malaise, unexplained weight gain or loss, fever, chills, sweats

Specific Tests and Measures

Once it has been decided that a patient's problems/conditions are most likely amenable to physical therapy intervention, the next determination a therapist must make during the examination process is to decide which aspects of physical function require further investigation through the use of specific tests and measures.

Specific (definitive/diagnostic) tests and measures used by physical therapists provide in-depth information about impairments, activity limitations, participation restrictions/disabilities.[3,45,49,87] The specificity of these tests enables a therapist to support or refute the working hypotheses formulated while taking the patient's health history and performing the systems review. In addition, the data generated from these definitive tests are the means by which the therapist ascertains the possible *underlying causes* of a patient's impairments and functional deficits. These tests also give the therapist a clearer picture of a patient's current condition(s) and may reveal information about the patient not previously identified during the history and systems review. If treatment is initiated, the results of these specific tests and measures establish *objective baselines* from which changes in a patient's physical status as the result of interventions are measured.


TODAY
TOMORROW
Don't lose hope.
(You never know what tomorrow will bring.)

THANK YOU CLASS
QUESTIONS ARE
WELCONE