CMLA
Commission for Motion Laboratory Accreditation, Inc

CMLA Policy

Title: Scope of Practice Policy on the Clinician Role in an Accredited Clinical Motion Laboratory

Purpose: This policy is meant to define the "*clinician*" role in a clinical motion/gait laboratory and the necessary competencies (both initial and ongoing) for the person assuming this role, as they pertain to the requirements for laboratory accreditation. *Competency* is a set of defined behaviors that provide a structured guide to proper performance of a task. It refers to the ability to execute a required task properly with a minimum level of proficiency. *Competency* is different from *licensure*, which is determined by the government and applies to an individual practicing a specific profession that requires licensure in their state. In this context, competency describes the skills necessary to perform the tasks associated with the clinician role in a clinical motion laboratory regardless of profession. CMLA does not issue certificates or licensure, but does require documentation of licensure by the state for professions that require it.

Definitions: CMLA defines *clinician* as any individual who performs skills related to clinical examination, marker/target placement, surface EMG placement, fine-wire EMG placement, and motion lab data interpretation. Individuals performing the clinician role in a clinical motion laboratory may belong to a profession that requires licensure, and if so must be licensed in their state where the laboratory is located and perform duties consistent with their scope of practice. All individuals, regardless of profession, that perform the clinician role must meet specific competency requirements as delineated in this policy.

Policy:

1) All the skills for the "clinician role" must be <u>verified</u> through an <u>initial competency process</u> and an <u>ongoing competency process</u> with a designated routine frequency (at least yearly). The skills of the "clinician role" may be performed by an individual who has the educational background that allows them to attain the needed skills. For licensed individuals, the individual must be functioning within his/her scope of practice and licensure. The possible backgrounds for the "clinician role" include, but are not limited to, physical therapy, kinesiology, biomechanics, physical therapist assistant, and physician. The performed tasks and skills needed for the "clinician role" for clinical motion/gait analysis procedures are defined in the Addendum to this policy (see below). In the majority of cases, the skills for items 2b) and 2c) below are attained during on-the-job training, as well as by participating in comprehensive courses on clinical gait analysis and fine wire EMG insertion, as these skills are not part of entry level education in most clinical disciplines.

2) The persons verifying initial and maintained competency in the individual skills (see **Addendum** to policy) for the "clinician role" must be experienced practitioners who have had specialized education, training or licensing (if required) and work experience in these skills. Work experience is defined as at least two (2) years fulltime practice in comprehensive motion/gait analysis.
    a) Clinical examination skills must be verified by a licensed physical therapist who also has experience in all standard clinical examination components, as well as the specialized measures used for motion/gait analysis; for example, tibial torsion, femoral rotation.

    b) Motion/EMG/foot plantar pressure/oxygen consumption data collection and analysis component must be verified by a physical therapist, kinesiologist, biomechanist or other qualified individual who has a specialized education that includes these skills and work experience in a clinical motion/gait analysis laboratory that requires these skills.

    c) Gait analysis data interpretation skills must be verified by a kinesiologist, biomechanist, physical therapist, physician, and/or other qualified individual who has specialized education that includes these skills and work experience in a clinical motion/gait analysis laboratory that requires these skills (**note: this applies to problem identification, not treatment recommendations**).

Addendum

"Clinician Role" skills include the following:

a) Clinical Examination – including the following assessments:
   i. passive range of motion and muscle length tests
   ii. femoral and tibial bony torsions/alignment (specialized gait relevant physical examination skills)
   iii. muscle strength
   iv. muscle tone
   v. muscle and movement selectivity, including specialized assessments relevant to motion analysis, e.g., confusion test

b) Comprehensive Gait Analysis Methods – will include all or a combination of the following components:
   i. Knowledge of biomechanical/skeletal model used in clinicians' motion/gait lab
   ii. Knowledge of the principles of marker placement; ability to place markers accurately
   iii. Knowledge of the principles of surface EMG electrode placement; ability to place electrodes accurately
   iv. Knowledge of the principles of fine wire EMG electrode placement; ability to place fine wire electrodes accurately and indications and contraindications for use
   v. Knowledge of foot pressure data (applies only if the lab performs this kind of testing)
   vi. Knowledge of oxygen consumption data collection (applies only if the lab performs this kind of testing)

c) Gait Analysis Data Interpretation Skills:
   i. Knowledge of joint angle definitions, kinematic data, data presentation formats, and typical developing, i.e., child to adult, kinematic data
   ii. Knowledge of joint moment and power computations, joint moment and power data, data presentation formats, and typically developing, i.e., child to adult, joint moment and power data
   iii. Knowledge of EMG raw data, processing methods, plotted data formats, typically developing, i.e., child to adult, EMG data and ability to verify signal quality
   iv. Knowledge of foot pressure data outputs (pressure gradients, normal and abnormal patterns and center of pressure data) (if available).
   v. Knowledge of oxygen consumption data outputs (oxygen cost and expenditure) (if available).
   vi. Integration and interpretation of kinematic, kinetic, EMG, foot pressure (if available), spatiotemporal gait parameters and oxygen consumption data (if available) with clinical examination

information and patient reported information to create a motion/gait analysis report with a clinical problem list related to pathological gait (likely cause and effect)