1. Acetabular Index Left \_\_\_\_\_ oRight \_\_\_\_\_o

2.\*\* Migration Percentage (AP) Left \_\_\_\_\_%Right \_\_\_\_\_%

3. Pelvic Obliquity (AP)Left \_\_\_\_\_ oRight \_\_\_\_\_o

4. Triradiate Cartilage Open Closed

\*\*Supplemental – Highly Recommended

## General Instructions

Information provided by a pelvic view radiograph helps determine the status of hip dysplasia in the setting of cerebral palsy (CP) and CP-like conditions. Specifically, the pelvis radiographs allow for the measurement of angles that describe the pathophysiology of hip disease in CP.

Radiography assessments include acetabular index, migration percentage (AP), pelvic obliquity (AP), and triradiate cartilage status.

Important note: None of the data elements included on this CRF Module are classified as Core (i.e., strongly recommended for all Cerebral Palsy clinical studies to collect.) Migration Percentage is classified as Supplemental-Highly Recommended. All other data elements on this form are classified as Supplemental (i.e., non-Core) and should only be collected if the research team considers them appropriate for their study. Please see the Data Dictionary for element classifications.

## Specific Instructions

Please see the Data Dictionary for definitions for each of the data elements included in this CRF Module.

The **acetabular index** is a radiographic measurement of femoral head bony coverage by the acetabulum. It is useful in assessing for developmental dysplasia of the hip (DDH) as well as pincer morphology in femoroacetabular impingement (FAI).

Measurement of the **migration percentage (MP)** and **acetabular index (AI)**. The MP represents that portion of ossified femoral head which has migrated laterally beyond Perkin's line. MP = A/B 100%. The AI describes the slope of the acetabulum and is measured in degrees (H, Hilgenreiner's horizontal line between triradiate cartilages, P, Perkin's line drawn perpendicular to the H-line at the lateral margin of the acetabulum).

The **migration percentage** is measured by calculating the percentage of the femoral head that lies outside of the lateral border of the acetabulum as defined by bony landmarks on an anteroposterior pelvis radiograph (Reimers et al., 1980). Following the migration percentage is a useful predictor for determining the risk of subluxation and the effectiveness of interventions.

The **acetabular index** is measured on AP pelvic radiograph. First, a line is drawn running through the medial edge of the sclerotic acetabular zone and through the lateral sourcil. Then a horizontal line is drawn, and an angle is measured between these two lines.

**Pelvic Obliquity (AP)**: refers to the radiograph view of the hip/pelvis; Pelvic obliquity is referred to as one of three parameters contributing to the pelvic orientation and defines the rotation of the pelvis at the coronal plane. There are several ways to measure pelvic obliquity, but the most common method determines the angle between the pelvis and the local horizonal plane, as defined by the radiographic plate.

The **triradiate cartilage** is the confluence of the main physes, or growth plates, of the three bones that make up the pelvis. The status of whether the triradiate cartilage is open or closed is an indicator of skeletal maturity, and an indirect measure of the ability for the pelvis and acetabulum to remodel. (Eich et al., 1992)

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