Curricular Components That Support the Functions of EPA 2: Care for Patients Who Require Catheter-Based Interventions

1. Demonstrating the skills and knowledge required to perform a thorough pre-catheterization assessment including detailed review of the medical history, current condition, physical examination and relevant diagnostic studies
   - Determines the general state of the patient
   - Orders the relevant diagnostic studies based on cost-benefit analysis for the individual patient and shared decision-making with the patient and family
   - Interprets the relevant diagnostic studies in the context of the history and physical examination
   - Knows the indications and contraindications for catheterization and specific interventions
   - Recommends appropriate and timely catheterization referral
   - Seeks and incorporates feedback from interventional consultants regarding pre-referral diagnostic workup and management

2. Knowing the risks and benefits specific to the full spectrum of cardiac catheterization procedures and of potential noncardiac catheterization options for optimal patient management
   - Describes the risks and benefits of diagnostic and common interventional cardiac catheterization procedures
   - Describes the principles of radiation safety
   - Describes basic procedural methodologies of diagnostic catheterization and common interventions
   - Explains the alternative diagnostic options
   - Explains the alternative management options, including medical and surgical

3. Interpreting the hemodynamic and angiographic data
   - Distinguishes normal pressure data, including waveforms, from abnormal data
   - Determines pressure gradients
   - Applies thermodilution and the Fick principle for cardiac output measurement and resistance calculations
   - Interprets the results of angiography
   - Synthesizes the catheterization data into a unified diagnosis where possible
   - Determines the procedural result to be successful or unsuccessful where possible

4. Communicating the intent and risks of the procedure as well as the results of the procedure to patients, families, and professional colleagues
   - Communicates with the patient/family and ensures their understanding of the indications, risks, benefits, alternatives, and potential complications
• Elicits and takes into account patient preferences in making recommendations
• Communicates the results of the procedure to the patient/family and ensures their understanding
• Communicates the catheterization data, both orally and in written form, to interdisciplinary colleagues

*Common interventional cardiac catheterization procedures include the following
• Valvuloplasty
• Arterio/venoplasty
• Device closure
• Stent placement
• Balloon atrial septostomy
• Endomyocardial biopsy

Curricular Components Authors
Shubhika Srivastava, Antonio Cabrera, David Brown, Lowell Frank, Elizabeth Braulin, Julie Glickstein, Pierre Wong, Peter Koenig, Ben Reinking, Beth Printz, Troy Allen Johnston, George McDaniel