Top Ten Things To Know
Clinical Competence in Coronary Artery Interventional Procedures

1. This paper is an update of the 2007 ACCF/AHA/SCAI Clinical Competence Statement on Cardiac Interventional Procedures.

2. The operator and institutional volume discussion, conclusions, and recommendations in this document supersede the recommendations in the 2011 ACCF/AHA/SCAI Guidelines on Percutaneous Coronary Intervention (PCI).

3. This paper was developed to review currently available scientific data for coronary intervention in adults with the following purposes:
   - To characterize the expected success and complication rates for coronary artery interventional procedures when performed by skilled operators.
   - To identify comorbidities and other risk factors that may be used for risk adjustment when assessing procedure-specific expected success and complication rates.
   - To assess the relationship between operator activity level and success rates in PCI procedures as assessed by risk-adjusted outcome statistics.
   - To assess the relationship between institutional activity level and success rates in PCI procedures as assessed by risk-adjusted outcome statistics.
   - To develop recommendations for assessment of operator proficiency and institutional program quality, including data collection to permit monitoring of appropriateness and effectiveness of PCI procedures both at the level of the operator and the institution.
   - To assess the use of coronary procedures in patients with structural disease.

4. Although the basic structure of coronary balloons and atherectomy devices has not changed substantially over the years, the development of the coronary artery stent dramatically altered the practice of coronary intervention.

5. Stent thrombosis is an uncommon but an important cause of short- and long-term clinical failure.

6. Characteristics of the physical facility in which interventional procedures are performed have important influences on achieving procedural success.

7. Operators and catheterization laboratories should be strongly encouraged to submit information to large and transparent clinical databases that allow for adequate benchmarking and the development of contemporary risk-adjusted outcomes.

8. Data reflect an important signal that exists suggesting that an institutional volume threshold < 200 PCIs/year appears to be consistently associated with worse outcomes across the various studies

9. To achieve optimal quality and outcomes in PCI, including acceptable angiographic, procedural, and clinical success rates, it is necessary that operators and the supporting institution be appropriately skilled and experienced, collect data to allow quality analysis, and have established appropriate systems of care.

10. An effective, quality assurance monitoring process should also include random case review, development of critical pathways, and accomplishing and documenting positive changes in practice.

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