Outpatient, Transradial PCI - Same Day Discharge

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**Philosophy**
Patients who walk in for an elective outpatient diagnostic cardiac catheterization and require an interventional procedure (PCI), can be home the same day unless there are physical or social issues that would necessitate an overnight stay.

Decision for the same day discharge is based on uncomplicated procedural success: No acute closure, no uncovered dissection, TIMI 3 flow, and no procedural complications. Determining need to pringle post-procedural care. Individuals with no support system at home remain overnight in the outpatient observation unit.

**Methods**
Consecutive outpatients with stable coronary disease undergoing PCI with stent were reviewed using National Cardiology Data Registry (NCIQ) data. Patients were offered Same Day Discharge, but were informed that overnight observation may be required pending the outcome of the procedure.

**Background**
Adverse thrombotic events have been reduced with improved stents and use of potent platelet inhibitors. With the increased use of transradial techniques there have been no reductions in previously eliminated previous bleeding concerns.

Less than 5% of PCI patients in US were treated using the radial-artery access with demonstrated 58% lower risk of bleeding than femoral approach PCI.

**Demographics:**
- 66.7 % male & 33.3 % female
- Ages: 06.4 % less than age 44
- 18.8 % age 45-54
- 31.4% age 55-64
- 24.2% age 65-74
- 19.3% age 75-80+

**Results - PCI**
Pre-treatment with high-dose clopidogrel or short infusions of IV platelet inhibitors were used in all patients (N=97 radial outpatients vs. 819 inpatients) along with anti-thrombin therapy. Currently, 57% of procedures in our hospital are radial, compared to less than 5% in all US hospitals. Transradial access with 5 or 6 French catheters were used most admitted ad hoc PCI. After 1 year from procedure with same day discharge complications identified were: four patients had hematoma at access site, six patients had loss of pulse (occurred radial artery), and 1 patient had hemorrhage at the access site requiring antibiotics. There were no readmissions due to cardiovascular changes including renalinsis, CPK rises or EKG changes.

The outcome yielded high levels of patient/family satisfaction with no significant adverse events. The Observation Unit has received the "Highest Patient Satisfaction" Award in the hospital for the past 4 years.

Nurse Practitioners play a key role to move the patient through this process safely and effectively. While patients are in the Observation Unit for recovery the Nurse Practitioner begins to address discharge information shortly after return. Patients are provided a full discharge packet to include stent, coronary artery disease and angina information, medications instructions & prescriptions. Cardiac Rehabilitation referrals are made within the first 24 hours. Cardiology and Primary Care follow up appointments are made, all prior to the Same Day discharge to home. The Nurse Practitioner provides a continuity of care with: 1) Phone contact to confirm recovery status of the patient, 2) Respond readily to problems identified by Cath Lab Staff in their follow-up phone call surveys to patients done post-procedure.

**Conclusions**
Radial approach to outpatient stent placement provides an efficient approach in select patients. With shorter hospital stays, high occupancy outpatient units can operate more efficiently without patient dissatisfaction and patients are exposed to less hazards of hospitalization. The Nurse Practitioner is involved in post procedural teaching to the patient and family and discharge follow up facilitates the success of the Same Day Discharge process. Involvement of all staff towards ensuring quality care in recovery and discharge education is improving outcomes and patient satisfaction.

**References**
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Gilchrist IC. CCI. 2009; 73-44-49.
Heft G. et al. CCI. 2009; 73-44-47.

**Time Line**
- **Aspirin 325 mg**
- **Clon�odine 1 mg**
- **Bolus GP IIb/IIIa**
- **Platelet Inhibitor Infusion**
- **Procedure**
- **No GPI**
- **<2 hrs**
- **>2 hrs**
- **none**
- **Start**
- 0 minutes
- **80 [60, 100] minutes** (includes diagnostic, too)
- **360 minutes**
- **Discharge**
- 6.5 (5.6, 7.9) hours
- No early MACE
- No late bleeding
- No patient complaints
- No CKP