Creating a Mobile Point-of-Care Testing Service to Reduce Unnecessary Ambulance Rides and Emergency Department Visits: How FirstPath Lab Services Delivers a Valuable Clinical Lab 2.0 Resource
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Our Vision of Lab 2.0

- Homebound or facility bound patients need high quality laboratory services provided in a patient friendly manner.
- We need to have something to separate us from the other laboratories in our Service Area.
- Acute Mobile Point of Care Services for LTACs and Rehab Hospitals is a service NOT provided by others.
- We expanded that by offering Mobile Phlebotomy Services to the patient homes or facilities for delicate/sick patients serviced by a Telemedicine Provider.


Concept

• Nursing Homes and Rehabilitation Hospitals that are Part A facilities are getting sicker patients and are reimbursed on a fixed payment.

• When patients have an acute episode, they must be transferred to an acute care facility Emergency Department for evaluation and care.

• AMS, especially in combination with Telemedicine can markedly reduce this expense and provide ED quality for the patient without the cost.

• The Part A facility is financially responsible for the episode of care. This can cost a facility hundreds of thousands of dollars.

• In-home Provider visits are taking sick patients and keeping them from being re-admitted to the hospitals. Mobile stat phlebotomy services with rapid TAT are an extension of the AMS Point of Care service.
Details on AMS

• There are 8 Emergency Protocols using National Guidelines.
• Each protocol has step by step directions, diagnostic tests and guides.
• Lab uses State Licensed Laboratory Personnel to provide Licensed Point of Care Laboratory Testing at the facility on a mobile basis.
• Use i-Stat analyzers with 8 different cartridges available according to protocols.
• Facility calls for service, tech acknowledges and verifies call. Clock starts- (2 hours from call to results). Tech takes “bugout bag” and drives to facility, reports to nursing station and provides testing service. Final Report on site to nurse and physician within 2 hours.
Protocols with Tests

- **Acute Chest Pain**: Chem 8+, cTnl OR CKMB
- **Acute Heart Failure**: Chem 8+, cTnl OR CKMB, BNP
- **Acute COPD/SOB**: Chem 8+, CG3+ (Blood Gases), BNP, cTnl
- **Acute Renal Failure**: Chem 8+, BNP
- **Acute Bleeding**: EC4+, PT/INR
- **Sepsis**: Chem 8+, CG4+ (Blood gases + Lactate)
- **Urinary Tract Infection**: Chem 8+, CG4+ (Blood gases + Lactate)
- **Falls**: Chem 8+, PT/INR
OPERATIONAL SUMMARY

• AMS testing is performed using an I-Stat Analyzer.
• All equipment and materials are contained in a “Bug Out Bag”.
• The Reagents are refrigerated until call is received. Reagent cartridges are kept in a temperature controlled bag with current expiration dates.
• Blood Collection supplies are kept in a similar bag and are kept current as to expiration dates, etc.
• A lap top computer and printer are included for the generation of a printed report at the facility for immediate action.
• All of the data is saved on the laptop and downloaded directly into the LIS for the generation of a final report on FirstPath standard report template.
Bugout Bag Contents
Improvement Data

• The data below is an example from a Rehabilitation Hospital/LTAC.
  • Prior to AMS inception:
    • Average 3-4 patients per week were sent to the hospital ED for Cardiac, Pulmonary and other acute conditions due to lack of facilities.
    • ED dept visit (if not admitted) average cost was $3500 to $5000. Most of the patients were returned to the facility directly from the ED.
    • If admitted (2-3 days), average cost was $20,000 to $35,000. About 10 to 20% of the patients were admitted (average length-2.6 days) then returned to the facility.
    • The facility is responsible for the cost of the ED and Hospital admission because they are paid on a per diem or Medicare Part A. Annual costs were over $1.9 million
    • Although each patient has a physician who attends to them and visits regularly, due to the lack of laboratory facilities, the patients were sent to the ED.
Improvement Data

• After AMS inception:
  • ED and Hospital Transfers dropped to less than 1 per week.
  • AMS on-site visits average 4 to 6 per week at an average cost of $185.00 per patient encounter.
  • The addition of “STAT Mobile Phlebotomy” with <3hr TAT as a service for those who are of less acuity than the typical AMS patient further enhanced the services provided. This service is described in subsequent slides.
STAT Mobile Phlebotomy Service

With the success of the AMS service, the facility asked if we could provide a STAT service not requiring the instrument but simply a phlebotomist to draw blood and a rapid TAT for tests like CBC, CMP, etc.

• We responded by developing the service –
  • Facility calls and asks for Stat Mobile Phlebotomist
  • They provide all demographic information and tests to be drawn.
  • Phlebotomist is dispatched and TAT is measured from when they leave the facility until result is electronically transmitted to the facility (also result called).
  • Turn Around Time is < three hours from when phlebotomist leaves facility (South Fla Traffic is a serious time determinant).
  • Charge is the $30 Stat Draw fee plus the charge for the requested test.
Stat Mobile Phlebotomy

• As a result of this service, we average 3 to 4 mobile stat phlebotomy calls per day.
• Average charge is <$100 per patient encounter.
• Average TAT for the service is <3 hours from departure of facility to report at the facility.
• We now offer this service in a modified form to Homebound Acute Care patients who have been recently discharged and under physician care at home.
CHALLENGES

There are reasons other labs have not yet entered this arena:

• 24 x 7 Coverage availability
• MT/MLT staff must be phlebotomy competent
• Insurance companies nor Medicare/Medicaid cover the mobile service adequately.
• Not all facilities want to be “Client Billed”.
• Depending on State Regs, may need a separate CLIA license
Outcomes

• Reduction of Re-Admission rates
  • Re-admission rates for LTAC patients reduced by >70% after addition of Acute Mobile Laboratory services.
  • The addition of Hospitalists on site at the LTAC significantly improved the quality of care for the patients.

• Reduction of ED visits and Costs
  • ED visits reduced by 80% after addition of laboratory services.
  • Cost comparison for facility =
    • ED visit without admission - $5900 (average)
    • ED visit with observation - $12,600 (average)
    • AMS visit – ($180 to $300 depending on Protocol)

• All services are “client billed” to facility.
FINANCIAL SUMMARY

• Before AMS
  • Average number of weekly patients to ED - 3 to 4
  • ED visit (no admission) average cost - $5900
  • ED visit with 1 day observation – average cost – $12,600
  • ED visit with full Admission – average cost -$24,400

• AMS Impact
  • Average number of weekly patients to ED - <1/week
  • Average AMS (i-Stat on site) cost - $185 per patient encounter
  • Average number of patient encounters – 4 to 6 per week

• Financial Comparison –
  • Pre AMS – approximately $40,000 per week (combined average)
  • Post AMS - <$1000/week AMS and <$20,000/month Admissions
BUSINESS OVERVIEW

• Rehab Hospitals, Acute Care units in Nursing homes and Home Health Agencies needed Acute Lab Services on Site in short period of time.

• No one in area would provide the service and patients were being sent to EDs and Hospitals for admission-costs were borne by the facilities who are paid a fixed fee per day.
BUSINESS CHALLENGES

Establishing an Acute Care Section in facility (Cardio-Pulmonary) IF appropriate.

Obtaining competent staff available on as needed basis.

Currently Billing to Facility only- Insurances/Medicare/Medicaid do not cover the Mobile Service adequately.
HOW WAS THE BUSINESS CHALLENGE ADDRESSED

• FPL created a division staffed by laboratory professionals who provide limited emergency POCT at the facility with results, within 2 hours of call.

• It can be done in collaboration with a Telemedicine provider as well as a standalone service according to needs of the facility.
Stakeholder Impact

- **Payer**
  - Reduction in expenses of \(~$8000\) per case
- **Clinician**
  - Results in 2 hours from call.
  - Standardized national protocols
- **Administration**
  - Ease of use, improved expense control
- **Patient**
  - Improved quality of care, speed of service
BUSINESS OUTCOME (KPI, $$)

• Reduction of Re-Admission rates
  • 80% reduction after addition of lab services

• Reduction of ED visits and associated costs
  • ED visit w/o admission ($5900 average)
  • ED visit w/ observation ($12,600 average)
  • AMS visit ($180 to $300 depending on protocol used.

• Improved patient care on site at facility
KEY LEARNINGS

• Look at opportunities with unbiased eyes-
  • Be creative in your thinking.
• Select your audience and listen to their needs.
• Evaluate the various reimbursement models and if necessary work with insurers to collaborate.
• Work with the various stakeholders –
  • Physicians
  • Facilities
  • Payers
QUESTIONS??