Apheresis Program Management

Laura Collins BSN HP(ASCP)
Assistant Manager - DeGowin Blood Center
University of Iowa Healthcare
Introduction

Managing An Apheresis Program

- Balancing multiple resources
  - Availability of complex medical equipment
  - Highly skilled and qualified apheresis operators
  - Maintaining adequate inventory of supplies
- Managing day to day operations in a dynamic environment
- Ensuring financial sustainability
- Adherence to the Quality Management Plan to ensure a culture of quality and compliance with regulatory requirements
Apheresis Program Structure

Size And Scope Of Services Vary Extensively

- Location
  - Hospital or clinic
  - Regional blood center
  - Independent business
  - Mobile programs that service multiple hospitals

- Services
  - Donor apheresis, therapeutic apheresis, cellular therapy collections
    - Larger programs may offer all of these services
  - Adult, pediatric or combination of both
  - Some centers offer a wide range of therapeutic procedure types while other centers may specialize in a limited number
Apheresis Program Structure

Medical Director

- Accrediting organizations such as AABB, College of American Pathologists (CAP) or Foundation for the Accreditation of Cellular Therapy (FACT) require a licensed physician medical director to oversee an apheresis program.

- ASFA publishes Guidelines for Physicians Overseeing Therapeutic Apheresis¹
  - Recommends the service is led by a licensed physician qualified by training and/or experience
  - Lists qualifications the Medical Director should possess

Organizational Structure

- Specifies a clear reporting structure
- All staff members should be familiar with their organizational structure
  - Organizational charts
  - Position descriptions

¹ Guidelines for Physicians Overseeing Therapeutic Apheresis available at:
http://www.apheresis.org/?page=guidelines
Apheresis Program Structure

Non-physician personnel

- Clinical or technical manager
  - Apheresis experience, management skills and technically strong

- Apheresis operators - education and qualifications vary
  - Medical Technologists
  - Nurses
  - Apheresis Technicians
  - Combination of these classifications
  - Check state regulations and accrediting organization requirements regarding staff qualifications necessary to operate apheresis equipment

- Support staff
  - Clerical and administrative staff
Recruitment and Retention

Recruiting and retaining desirable employees is key to a successful program

- One of the most difficult aspects of managing an apheresis program
- If Hiring is difficult ↔ Staff retention is difficult
- Strong hiring practices will:
  - Ensure an adequate number of highly skilled staff to meet the needs each day
    - Volume of donor and patient procedure varies and isn’t always known in advance
    - Must have flexibility to perform unanticipated procedures
  - Reduce the amount of time spent training new employees
    - Expensive
    - Requires months of staff time for the trainer and trainee
  - Reduce negative impact on the unit from ineffective hiring and inadequate staffing levels
- Long term retention of staff enhances quality and safety while reducing the financial burden
- Maintaining adequate staffing allows more time for staff development and process improvement
Hiring Process

Candidate Qualities

- Task oriented and technically skilled
- Autonomous
- Customer service focused
- Adaptable to flexible work schedule and fluctuating workload
- Excellent communication skills
- Quality oriented
- Excellent phlebotomy skills

Desirable Previous Experience

- Apheresis
- Dialysis
- Hematology/Oncology
- Critical care
Hiring Process

**Interview**

- Assess the knowledge level and experience of the candidate
- Review the job description, duties, responsibilities, and erratic nature of the schedule
  - Most candidates are unfamiliar with apheresis
  - Candidate can make an informed decision
- Involve technical staff in the interview
  - Is candidate a good fit with current staff?
- Review expectations regarding the work hours and on-call requirements
  - Show examples of staff schedules
Procedure Scheduling

Patient And Donor Apheresis Schedules Fluctuate

- Scheduled Procedures
  - Generally not urgent and planned for in advance
  - Outpatient procedures must be scheduled at a specific day and time for the patient to arrive
  - Usually occur during normal business hours
  - Can be more difficult to re-schedule on short notice

- Acute Procedures
  - Difficult to anticipate and must be worked into the schedule
  - In some situations inpatient acute procedures may offer more flexibility to be scheduled during the workday
  - Acute procedures may occur after normal business hours
Staffing

Methods For Ensuring Adequate Number Of Staff To Meet The Needs Each Day

► Flexible Scheduling
  ▪ Creative scheduling will maximize staffing and improve procedural coverage
  ▪ Accommodating flexible staff schedules to the extent HR policies allow
    ➢ Flexible schedules improve employee satisfaction and retention
  ▪ Stagger shifts to accommodate procedures that start early and those that run late

► On-Call
  ▪ Designated staff rotate On-Call
    ➢ Complete procedures that run beyond normal business hours
    ➢ Perform urgent procedures that occur after hours, or on weekends and holidays

► Part Time or Hourly Employees
  ▪ Offers flexibility when staff are gone due to illness, volume of procedures is more than expected, or unanticipated urgent procedures are added.
Training and Competency Assessment

- It is essential to provide an organized, systematic program of training for employees
- Regulators require you to document training and demonstrate competence before independent performance of assigned activities
- Competent Trainer
  - Expert at performing the functions
  - Knowledgeable about policies and procedures
  - Interested in training and have good communication skills
  - Confident enough to correct performance problems
- Training plan
  - Training requirements
  - Training schedule and identity of the trainer
  - Program content
  - Expected outcomes
Incorporate varied methods of training
- Reading lists
- Quizzes
- Computer modules
- Mock procedures

Training guides/documents
- Standardize content and delivery of training
- Organize training events
- Allow trainers to perform and document the training
- Include expected performance standards

ASFA Standards and Education Committee have published guidelines to assist in the training and documentation of a competent and proficient staff\(^2\)
- Provide examples of competency checklists that can be used as written or modified to institutional policies

Training and Competency Assessment

- Competency can be assessed in a variety of ways.
  - Knowledge and theory can be assessed with problem solving quizzes
  - Motor skill assessment can be performed by direct observation of procedure using a skills checklist

- Competency assessment should occur at regular intervals
  - Provides assurance staff will continue to adhere to policies
  - Allows detection of workarounds being performed

- Continuing education is important to maintaining highly trained and knowledgeable apheresis personnel
  - In-services provided on-site
  - Annual or regional meetings held by professional organizations
  - Webinars - ASFA provides free webinars to members. Other professional organizations provide webinars free or at a nominal fee
  - Journal Articles
  - Staff meetings
Financial Considerations

Financial Plan or Budget

- Balances expenses with projected revenues
- Revenue is hard to control due to varying reimbursement rates and practices
- Facilities focus on controlling expenses
  - Personnel
  - Supplies - minimizing wastage
  - Equipment maintenance
  - Overhead costs
- Close monitoring over time allows development of an accurate financial plan
Financial Considerations

- Annual budget usually contains the following:
  - Predicted revenue
  - Predicted procedure volumes
  - Expense budget based on revenue predictions
  - Personnel budget
  - Capital equipment budget

- Weekly and monthly reports aid in monitoring for variances between projected financial estimates and actual values
  - Track procedure volumes
  - Track variation and trends in procedure activity
  - Identify reimbursement trends
  - Track personnel expenses
Financial Considerations

- Evaluate hours worked with procedure volumes
  - Evaluate overtime expenses closely
    - If procedure volumes have not increased the expense reflects inefficiency in the system
    - If procedure volumes have increased the expense is justified
    - If growth is sustained the additional overtime expense may justify the addition of more personnel

- Varied methods for measuring productivity
  - Choose something that is consistent and measureable
  - Example - paid staff hours per billable procedure
    - Consistent monitor of productivity
    - Can be trended over time
    - Monitoring the trends can be used when preparing the budget and future planning
    - Goals can be set using historical data
      - Ratio above goal - more procedures were performed
      - Ratio below goal - fewer procedures were performed
Financial Considerations

- Projecting the needs of therapeutic apheresis service:
  - Challenging due to the unpredictability of apheresis referrals
  - Generally one cell separator and operator can perform 2 therapeutic apheresis procedures per day
  - Projecting needs
    - Calculate # of cell separators and operators necessary to cover the projected # of procedures
    - Add an additional cell separator and operator
      - Instrument breakdown
      - Staff illness, vacations, on-call
      - Urgent add on procedures

- Develop infrastructure to help justify staffing
  - Planned and scheduled procedures
    - Cellular therapy collections
    - LDL apheresis
    - Photopheresis
Quality Management Plan

An effective Quality Management (QM) Plan ensures the entire program is compliant with accreditation standards and regulations

- Written plan that provides a framework to ensure all aspects of a quality system are in order
- Apheresis manager is responsible for development and adherence to the QM plan
  - Staff are properly trained
  - Supplies and equipment work as intended
  - There is ongoing evaluation of deviations and best practices
- The QM plan should be familiar to all employees and should be discussed often
- Many facilities borrow from the quality system framework of the AABB - Quality System Essentials (QSE)
  - 10 fundamental quality structures that compel a facility to address all aspects of the program
Quality Management Plan

- Internal Quality Assurance personnel often have oversight over the QM plan
  - Assist in tracking and trending data
  - Assist in developing validation plans
  - Perform audits and point out areas of concern to management
  - Assist during inspections
  - Monitor for compliance to regulatory requirements

- The manager is responsible to ensure the structure, tools, and training are in place so everyone can perform quality work.

- The manager must foster a culture of quality within their facility
Successful operation of an apheresis program involves balancing multiple resources in a complex and dynamic setting. Managers must maintain a highly trained staff and utilize creative scheduling to adjust to unpredictable patient and donor volumes. Review fiscal reports and manage and adhere to budgets. Managers also must continuously monitor adherence to regulatory standards and quality systems. Successful operation of an apheresis center results in the delivery of quality blood products and safe and effective patient care.
References

1. Guidelines for Physicians Overseeing Therapeutic Apheresis available at:
   http://www.apheresis.org/?page=guidelines

