Reporting QM Changes and Deviations

June 20, 2011
Webinar Presenters

• Tara Sadeghi, BS
  MD Anderson Cord Blood Bank
  Houston, Texas
  tsadegh@mdanderson.org

• Olive Sturtevant, MHP, MT(ASCP)SBB, SLS
  Dana Farber Cancer Institute
  Boston, Massachusetts
  Olive_Sturtevant@dfci.harvard.edu
Objectives

• Explain the requirements for reporting:
  – QM Changes
  – Deviations to policies and procedures
  – Cellular therapy product deviations

• Provide tips on how to report changes and deviations
REPORTING QM CHANGES

Time to Dust off the QA Plan

Vs.

CQI

Change Identification

Effectiveness monitoring

Change Assessment

Change Implementation

Change Communication
Examples of QM Changes

• Revisions to:
  – Quality Management Plan
  – Policies and procedures (SOPs)
  – Associated forms
  – Use of electronic record systems

• Why do people need to know about these changes?
  – Minimize errors, accidents, adverse events, and deviations
  – Enable compliance to current SOPs and create effective training programs
  – Implement effective corrective actions
Effective Communication

• More than just “telling”
  – Who: List who is impacted
  – What: Describe the change
  – Where: Discuss where changes occur (both physically and procedurally)
  – When: State when the change should take place
  – Why: Explain the changes
Explicit Requirements Related to Reporting QM Changes

• Staff members must have documented review and training before he/she performs new and revised SOPs
  – 4th edition CT B5.6, C5.6, D5.6; 5th edition CT draft B4.5.4, D4.5.10, E4.5.9

• Cord Blood Banks must have a procedure for document distribution to relevant personnel, including written confirmation they have received and read the document
  – 4th edition CB B2.5.4
Implied Requirements Related to Reporting QM Changes

• Reporting changes to Directors
  – Necessary for review and approval process

• Third parties
  – Whether contracting a service or performing a contracted service
  – Example: A change in a cleared infectious disease test would necessitate notification to the testing laboratory
What and When to Initiate Changes

- Based on review of audit findings
- Publications of new standards or regulations
- New methods
- Changes in systems, process or procedures

Plan → Act → Check → Do → Change Identification → Change Assessment → Change Implementation
Suggested Ways to Report QM Changes

• Communication letters to customer
• In-services or training sessions
• Quality meetings
• Distribution of Documents (SOPS, forms, etc)
Three Examples QM Changes

• Changing environment
  – New facility for out-patient services

• Electronic Orders
  – Changed from paper orders to electronic orders (BOE) for cellular product collection, processing and distribution
  – Templated Apheresis orders

• New methods
  – Changed how cell counts are reported on products
Changing Environment
Development and Implementation of Biotherapy Order Entry System (BOE) and Biotherapy Product Availability Application (BPAA)

• BOE
  – Templated system for Collection, Processing and Release Orders of cellular therapy products
  – Templates based on information extracted from Treatment Plans and Clinical Trial Protocols
  – Templates pull information from dictionaries built for each cell type
  – Standardized product names, cell doses, approved processing, use of investigational agents, and release / infusion information

• BPAA
  – Manages the e-Orders from BOE and serves as a product inventory system so clinicians can choose the actual product (bags) for further manufacturing or for infusion
Move to eOrders
Planning for Change

• Understanding the need
• Cross-departmental working group
• Plan & Scope
• Timeline
• Resources
• Design specifications
• Dictionary build
• Committee steering and planning review
• Initial review by end users
• Workflow changes
• SOPs and policy development
• Validations
• Training
• Concurrent orders
• Go-Live
Training for Cell Therapy eOrdering System

• Clinicians
  – BMT Allogeneic Treatment Plans / Protocols
  – BMT Autologous Treatment Plans / Protocols
  – Immunotherapy Protocols

• Collection staff
  – KFBDC & other (clinicians TC and marrows)

• Processing CMCF staff
Communication was Key
Promotional Plan

• **1-DFCI weekly newsletter**
  – Featured article on BOE and interview, Dr Ritz, CMCF team, a few of the providers etc.
  – Announce why and when this will be implemented. What the role out plan will be
• **2-DFCI online homepage**
  – Use the announcement section to put a BOE announcement 3-4 weeks before the May go-live date.
  – Use the "News section" for BOE announcement to displays for 4-5 days within 2 weeks before the May go-live date.
• **3-DFCI Plasma TV’s \**
  – Short announcement to be displayed for the month of April
• **4-Email from Dr Soiffer, Dr Antin, and Dr Ritz to their respective groups.**
  – TBD based on role out.
    • *Allo TP 855, 764, 799, 887
    • Auto TP 655, 878
    • *Protocol 06-196
    • Additional Protocols, 06-222, 07-029, 09-073
• **5- 4-Email from Dr Ritz and appropriate PI about Immunotherapy BOE**
  • 06-196, 06-200 etc
Improvements

• Orders are consistent with Protocol / IND requirements
• Eliminated duplicate and conflicting orders
• Orders are now legible
• Clinicians write the orders and choose the products from BPAA, including research materials
• Clinicians can see all orders written and what products are in inventory
On-Going Adjustment to Needs

• Steering committee
  – Modification request
  – Oversee development of next phase

• System maintenance
  – Develop new order templates as new clinical trials open or standard of care templates change
  – Training of new users or remedial training for some
Cellular Therapy Daily Apheresis Collection Order templates

• Defined the problem
• Used expertise from staff apheresis RNs and MDs
• Developed standardize apheresis templates
  – Reduced errors in selecting apheresis procedures and volumes to be processed
  – Eliminated resident order variation seen
• Communication, training and introduction of new tool
• Periodic audits to ensure no change
### Use of 7AAD vs Trypan Viability

**Impact of CD34 Reporting**

<table>
<thead>
<tr>
<th>Sample Type</th>
<th>CD34 w/o 7AAD</th>
<th>CD34 with 7AAD</th>
<th>% Difference</th>
<th>Trypan Viability</th>
<th>7AAD Viability</th>
<th>% Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPC-A</td>
<td>555</td>
<td>566</td>
<td>1.94%</td>
<td>100.0%</td>
<td>99.8%</td>
<td>0.20%</td>
</tr>
<tr>
<td>HPC-A</td>
<td>45</td>
<td>50</td>
<td>10.00%</td>
<td>100.0%</td>
<td>99.7%</td>
<td>0.30%</td>
</tr>
<tr>
<td>HPC-A</td>
<td>419.5</td>
<td>455.5</td>
<td>7.90%</td>
<td>100.0%</td>
<td>99.6%</td>
<td>0.20%</td>
</tr>
<tr>
<td>HPC-A</td>
<td>972</td>
<td>1062</td>
<td>8.47%</td>
<td>100.0%</td>
<td>99.9%</td>
<td>0.10%</td>
</tr>
<tr>
<td>PB</td>
<td>1</td>
<td>1.5</td>
<td>33.33%</td>
<td>100.0%</td>
<td>89.3%</td>
<td>8.88%</td>
</tr>
<tr>
<td>HPC-A</td>
<td>232.5</td>
<td>227</td>
<td>-2.42%</td>
<td>98.0%</td>
<td>89.5%</td>
<td>1.50%</td>
</tr>
<tr>
<td>PB</td>
<td>11</td>
<td>6.5</td>
<td>-69.23%</td>
<td>99.0%</td>
<td>99.5%</td>
<td>0.50%</td>
</tr>
<tr>
<td>HPC-A</td>
<td>26</td>
<td>26.5</td>
<td>1.89%</td>
<td>97.0%</td>
<td>93.1%</td>
<td>4.02%</td>
</tr>
<tr>
<td>HPC-A</td>
<td>443</td>
<td>410</td>
<td>-8.05%</td>
<td>100.0%</td>
<td>99.8%</td>
<td>0.20%</td>
</tr>
<tr>
<td>HPC-A</td>
<td>318</td>
<td>306</td>
<td>-3.92%</td>
<td>99.0%</td>
<td>99.1%</td>
<td>-0.10%</td>
</tr>
</tbody>
</table>

- Perform correlation study
- Report findings
- Plan Implementation
- Communicate
- Implement
- Audit Impact
Managing Change - CQI

- **Cell processing improvement:**
  - New equipment – more efficient processing methods
  - Closed systems
  - Re-analyzing work flow for inefficiencies
  - Shifting processing

- **Education / Awareness**
  - Create opportunities for all staff to learn about other areas of BMT
  - Demonstrate how department change affects the overall program

- **Improve communication**
  - Reporting product cell counts & minimizing unnecessary collections

- **Computerization**
  - BOE orders go live in May,
  - eScheduling within 2010
  - eBatch records in 2 years.

- **Motion analysis** to evaluate space and resource use
  - Adjacency space planning
REPORTING DEVIATIONS AND OTHER INCIDENTS
Programs may use different terms in their SOPs, which is acceptable as long as the intent of FACT Standards are fulfilled.
Requirements for Deviations

Detection

Follow-up Activities

Long-term Corrective Action

Deviations

Short-term Corrective Action

Evaluation

Investigation

Documented

Reporting

Long-term Corrective Action

Short-term Corrective Action

Follow-up Activities
Importance of Reporting Deviations

• Patient safety
• Performance improvement
  – Effectiveness of corrective actions
• Regulatory compliance
Reporting Planned Deviations

• Must be reported in advance
  – Require pre-approval by Clinical, Collection, Processing, Cord Blood Bank (CBB) Directors as applicable
  – If medically relevant, must be pre-approved by processing facilities’ and cord blood banks’ Medical Directors
Reporting Unplanned Deviations

• Requires review by the applicable Directors and Medical Directors
  – Includes both a description of the deviation and the associated corrective actions

• Must follow-up on reported product failures, concerns, or complaints
Reporting Adverse Events to Participating Facilities

- Documentation must be reviewed by applicable Director(s) and Medical Director(s)
- Written description must be available to the following as appropriate:
  - Recipient’s physician
  - Donor’s physician
  - Participating facilities (clinical, collection, processing, cord blood bank, registries)
Positive Microbial Cultures: Reporting Responsibilities

<table>
<thead>
<tr>
<th>Clinical Program</th>
<th>Collection Facility</th>
<th>Processing Facility</th>
<th>Cord Blood Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Recipient</td>
<td>• Recipient’s physician</td>
<td>• Recipient’s physician</td>
<td>• Prospective Clinical Program (directed units only – unrelated units shall be free from microbial contamination)</td>
</tr>
<tr>
<td>• Donor, if relevant</td>
<td>• Donor, if relevant</td>
<td>• Collection Facility</td>
<td></td>
</tr>
<tr>
<td>• Regulatory agencies if appropriate</td>
<td></td>
<td>• Other facilities in receipt of product</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Regulatory agencies if appropriate</td>
<td></td>
</tr>
</tbody>
</table>
Urgent Medical Need

- No comparable stem cell or cellular product is available and the recipient is likely to suffer death or serious morbidity without cells
- Use, collection, and distribution of an ineligible allogeneic donor requires urgent medical need documentation and the documented informed consent of the donor and the recipient
- Documentation must include:
  - Approval of recipient’s physician
  - Informed consent of donor and recipient
  - Notification of clinical, collection, and processing as appropriate
  - Approval of Processing Facility Medical Director or other designated physician (processing only)
Cord Blood-Specific Requirements

• In addition to other facilities in receipt of unit and regulatory agencies, deviations must be reported to the following as appropriate:
  – Accrediting agencies
  – Registries
  – Grant agencies
  – IRBs and Ethics Committees
Regulatory Reporting in the U.S.

• Unlicensed products
  – Adverse reactions involving a communicable disease
  – Deviations related to core cGTP requirements for distributed products
  – See 21 CFR Part 1271.350 for details on definitions, timeframes, and forms

• Licensed products (minimally manipulated unrelated CB)
  – Adverse reactions
  – Deviations related to GMP requirements, applicable regulations, and established standards
  – See FDA guidance, “Minimally Manipulated, Unrelated Allogeneic Placental/Umbilical Cord Blood Intended for Hematopoietic Reconstitution for Specified Indications” for details on definitions, timeframes, and forms
Thank you for joining us today.

- This was the last session of the QM Series Module 3: Quality Management Reporting.
- Join us for the upcoming inspection and accreditation workshops:
  - Cellular Therapy: September 14, 2011 in Charlottesville, VA
  - Cord Blood: October 26, 2011 in Rome, Italy
Continuing Education Credit

• Registrants signing up for credit will receive instructions via email
  – If you did not sign up but wish to receive credit, you can purchase credits via the FACT online store
Public Comment Period: Draft 5th Edition FACT-JACIE Cellular Therapy Standards

• Draft released on April 18, 2011
  – Comments accepted until July 14, 2011
• All stakeholders are encouraged to submit comments
  – Instructions, summary information, and the draft Accreditation Manual provided with the draft Standards
QUESTION AND ANSWER SESSION
References

- **FACT-JACIE International Standards for Cellular Therapy Product Collection, Processing, and Administration, Fourth Edition, 2008**