Why SCT Programs Require Specialized Computerized Records: Update of SCT BRIDG and the Static Interface Engine

Roy B. Jones PhD MD
ASBMT Informatics Committee
SCT is Unique

- Concept of a donor or donor product
- Matching/Selection – KIR/HLA antibodies
- Treatment/product coordination
- Unique toxicities – GVHD
- Mandatory reporting - SCTOD
Desirable/Necessary SCT System Features

- Data sharing – electronic
  - AGNIS/SCTOD
  - EMR
  - Structured data
- Relational database
- Workflow support
  - Clinical/Lab/Financial
- Outcomes analysis/reporting
Interoperability
What does it mean?

• Sharing information
  – But with what systems?

• What kind of information?
  – Text reports (blobs, objects)
  – Structured data

Does your system support structured data sharing?
What do most EMRs do for SCT?

- **Clinical Practice support**
- **Meaningful Use** – does not address structured data sharing
  - EMRs emphasize object sharing
- **Many EMRs lack robust relational databases**
- **No EMRs support SCT workflow**
- **Outcomes reporting is very difficult and usually dependent on vendor analytics**

**EMRs are not designed to support core SCT needs**
IT purchases are commonly controlled by institutional-level administrators who do not understand SCT and whose primary interest is business workflow and financial support.

All Prominent EMR vendors recognize that SCT is a niche market.

Data interoperability is financially disadvantageous for EMR vendors.
Research-Driven Patient Care: Current State

*IOM (2013) Best Care at Lower Costs
Research-Driven Patient Care: 

*Future State*

*IOM (2013) Best Care at Lower Costs*
### What We Envision

<table>
<thead>
<tr>
<th>Early Engagement</th>
<th>Active Participation in Decision Making</th>
<th>Patient &amp; Family Feedback</th>
</tr>
</thead>
</table>
| • Seamless E.H.R Transfer (records, images, pathology)  
  • Ability to Schedule Tests/ Appts / Treatment via web based Mobile App | • Treatment Decisions  
  • Clinical Trials  
  • End of Life | • Real Time Feedback-Rapid Change Cycle  
  • Patient Reported Outcomes  
  • Real-time Measurement of Value with Big Data Monitoring Outcome/Cost |
How Do We Get From

EMR

or

chart

To

Seamless data interchange
SCT/BMT Domain Model
With Integration Engine (IE)

Conceptual Design

Figure 1
SCT-specific vendors are now available

- [http://www.agnis.net/vendors](http://www.agnis.net/vendors)

Support of SCT workflow
Lab/clinical/financial integration
Structured data support
AGNIS interoperability
Exploring EMR interoperability
Acknowledgements

• NCI caBIG/CBIIT  Dianne Reeves
• CIBMTR  Doug Rizzo, Robinette Renner
• NMDP  Jane Pollack, Martin Maiers
• ASBMT IT Committee