IMPROVING REVENUE CYCLE FOR BMT: A COLLABORATIVE NETWORK APPROACH

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SARAH CANNON
AGENDA

• NMDP Payor Policy: Quick Updates
• Review of Medicare billing & payment issues
• Sarah Cannon Partnership and Experience
NMDP Payor Policy (2012-13)

- Public Policy
- Stakeholder Engagement
- TC Support

www.marrow.org/reimbursement
payorpolicy@nmdp.org
Public Policy

- **Affordable Care Act Implementation:**
  - Communicating with HHS on BMT issues
  - Database of 300+ health plan BMT policies

- **Medicaid:**
  - *Substantial Variation in Medicaid Coverage for Hematopoietic Cell Transplantation*
    - Poster available until 5pm on 2/14 (today); J. Preussler
    - Publication forthcoming
  - Letter sent to State of PA re: donor search benefits

**Please let us know about issues as they occur.**
Stakeholder Engagement

• 2012: Launch of Advisory Group on Financial Barriers to Transplant (AGFBT)
• Planning for “BMT Payor Forum” conference
  – Late Summer 2013
  – Invitees: Self-funded employers, reinsurers, benefit brokers & consultants
  – Agenda: BMT science, costs, clinical trials
  – Goal: Improve benefits/coverage for patients
TC Support

• Reference Guide Series:
  – Medicare Coverage
  – Coding and Documentation \textit{(new!)}
• Webinar: Coding Improvement – Feb/March
• Improved web site – coming in September

www.marrow.org/reimbursement
The Medicare Problem

1. Low volume & “new” procedure for CMS
2. BMT doesn’t fit into rate-setting procedures
3. TCs not capturing full charges on claim

= LOW REIMBURSEMENT
Two Uses of Claims Data

Submitted Provider Claim

Reimbursement
Payment for services provided (now)

Rate-setting
Future payment rate development (2+ years)
# Inpatient Payment Rate Improvement

<table>
<thead>
<tr>
<th>MS-DRG</th>
<th>MS-DRG Title</th>
<th>FY 2013 Relative Weights</th>
<th>FY 2013 National Pmt Rate</th>
<th>FY 2012 Relative Weights</th>
<th>FY 2012 National Pmt Rate</th>
<th>FY 2011 Relative Weights</th>
<th>FY 2011 National Pmt Rate</th>
<th>FY 2010 Relative Weights</th>
<th>FY 2010 National Pmt Rate</th>
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</thead>
<tbody>
<tr>
<td>009</td>
<td>BONE MARROW TRANSPLANT</td>
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<tr>
<td>014</td>
<td>ALLOGENEIC BONE MARROW TRANSPLANT</td>
<td>10.5255</td>
<td>$60,777</td>
<td>10.2792</td>
<td>$57,884</td>
<td>11.5947</td>
<td>$64,746</td>
<td>6.5419</td>
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<tr>
<td>015</td>
<td>AUTOLOGOUS BONE MARROW TRANSPLANT</td>
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<tr>
<td>017</td>
<td>AUTOLOGOUS BONE MARROW TRANSPLANT W/O CC/MCC</td>
<td>4.5817</td>
<td>$26,456</td>
<td>4.3224</td>
<td>$24,340</td>
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</table>
Pathways to Future Change

**CMS**
- Reimburse for S&P Costs
- Expand Coverage
- Modify Rate-Setting Rules

**TC**
- Understand CMS
- Accurately Report All Charges
Medicare Billing Self-Review Tool

• Many requests for help in analyzing TC data – not sustainable for the NMDP
• **Goal**: Develop a tool for TCs to analyze their own data internally
• Created with Jugna Shah, Nimitt Consulting
• Tested with Sarah Cannon and Kansas University *(THANK YOU!!)*
• NMDP Session will review in more detail
  – We will post a ‘final’ version by April 2013
The Sarah Cannon Blood Cancer Network (SCBCN) and the National Marrow Donor Program partnered during 2012 to review Medicare billing for patients transplanted from 01/01/2011 - 12/31/2011.

SCBCN is comprised of 5 programs performing transplants for approximately 800 patients annually:

- Colorado Blood Cancer Institute, Denver CO (CBCI)
- Oklahoma University Medical Center, Oklahoma City OK (OUMC)
- Sarah Cannon Blood Cancer Consortium, Nashville TN (SCBCC)
- Medical City Dallas Hospital, Dallas TX (Med City)
- Texas Transplant Institute, San Antonio TX (TTI)

Sarah Cannon is the global oncology service line for HCA.

HCA is the largest private operator of health care facilities in the world.

- 162 hospitals and 112 freestanding surgery centers in the US and UK
- Over 100,000 new cancer registry cases per year in the US
HCA ASKED SARAH CANNON TO FORM AN ONCOLOGY SERVICE LINE

Hospital Inpatients
- 164 hospitals in 20 states
  - Green states have HCA Hospitals

Sarah Cannon 1st Stage Markets
- Seven key markets to focus on comprehensive oncology strategy and the continuum of care

BMT Programs  Sarah Cannon Research Institute  Radiation Oncology

Current stats as of October 2012. All locations not indicated above as some cities may have multiple locations; this model is for illustration purposes only.
INTEGRATION IS THE KEY TO SUCCESS

SCRI Hem Consortium
- Research asset base
- Cancer science expertise
- Strong pharma interest

Leukemia:
- Leukemia patients have better outcomes in BMT centers
- Consolidation will increase quality, efficiency and profitability

Quality
- SOPs
- FACT Accreditation
- Pathway Development
- Outcomes
- Disease Focus (Leukemia)

Standardization of Care:
- Pathways and SOPs across a network will drive opportunity to establish and measure quality outcomes opportunity

Hem/BMT Network
Quality, Growth and Finance Strategy
collectively provide the ability to leverage
the national network on
a regional level

Growth
- Regional Referrals
- Aging Population
- Reduce Leakage
- Geographical Platform

Finance
- Employers
- Revenue Cycle
- Vendors
- COEs

Network Benefits
- COEs, employer programs and geographic consolidation
- Vendor contracting for network volume

Prognosis for Growth
- Autologous: Aging population will level set new therapies
- Allogeneic: Baseline growth through rising incidence of MDS, primary and secondary leukemias and autoimmune disease (Denver)
## NETWORK PROVIDES OPERATIONAL & CLINICAL EFFICIENCIES

<table>
<thead>
<tr>
<th>Opportunity area</th>
<th>Blood Cancer opportunities</th>
</tr>
</thead>
</table>
| **Accreditation support** | • Build shared resource to support facility accreditation – FACT and other accreditations  
• Develop accreditation best practices – data, application process, requirements, etc.  
• Standardized quality plan and metrics – audits, outcome analysis, corrective actions and regulatory reporting |
| **Standardized training and on boarding** | • Adopt standard operating procedures (SOPs) and training  
• Build BMT specific HealthStream training – annual and new hire  
• Set metrics for staffing level and skill mix |
| **Centralized BMT data**  | • Develop centralized BMT database  
• Integrate BMT data with other shared data resources (e.g. cancer registry)  
• Assist with national reporting and managed care RFIs  
• Identify quality and treatment improvement opportunities |
| **Quality and financial analytics** | • Provide centralized data tracking and analytics  
• Develop BMT program benchmarks - outcomes, cost |
| **Network purchasing**     | • Provide savings from shared purchasing – supplies, equipment, outsourced lab services, pharmacy, IT and systems |
| **Standards of practice** | • Common clinical protocols  
• Standard order sets |
A 12 month effort to standardize education, credentialing, quality and accreditation and SOPs

<table>
<thead>
<tr>
<th>Quality and Accreditation</th>
<th>Education and Credentialing</th>
<th>Standard Operating Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobilization</td>
<td>Mobilization</td>
<td>Mobilization</td>
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<tr>
<td>Develop shared quality plan</td>
<td>Education</td>
<td>SOP Sustainability</td>
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<td></td>
<td>Nursing</td>
<td>SOP Standardization</td>
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<tr>
<td></td>
<td>Advanced practice clinicians</td>
<td>Collection SOPs</td>
</tr>
<tr>
<td></td>
<td>Pharmacy</td>
<td>Processing SOPs</td>
</tr>
<tr>
<td></td>
<td>Physicians</td>
<td>Clinical SOPs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Monthly network (including work group review)</td>
</tr>
</tbody>
</table>

**WHAT IT TOOK: OVERALL TIMELINE**

<table>
<thead>
<tr>
<th>2011</th>
<th>2012</th>
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<tbody>
<tr>
<td>Oct</td>
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<td>Nov</td>
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<td>Dec</td>
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<td>Aug</td>
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<td>Sep</td>
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<tr>
<td>Oct</td>
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</tbody>
</table>

**2011**
- Dallas kick off
- 2nd Group Meeting at ASBMT

**2012**
- Issue resolution
- Further work as required e.g. develop training, put systems in place for dissemination, agree process for SOP update
- Complete non FACT required SOPs by end of 2012

Lean batched review process for SOP standardization (see detailed process on previous page). All FACT required SOPs complete by August.
Medicare Payment Rates for HCT

Recognizing Severity Levels, CMS Splits Bone Marrow Transplant DRGs Again

Bone Marrow Transplant MS-DRG Payment Change Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>DRG 9: BMT $36,984</th>
<th>DRG 14: Allogeneic $64,746</th>
<th>DRG 15: Autologous $33,228</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td></td>
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<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>DRG 14: Allogeneic $57,884</td>
<td>DRG 16: Auto with CC/MCC $35,548</td>
<td>DRG 17: Auto w/o CC/MCC $24,340</td>
</tr>
</tbody>
</table>

Effect of New BMT MS-DRGs on Sample Population of 100 BMT patients

<table>
<thead>
<tr>
<th>Year</th>
<th>Patients per DRG</th>
<th>Total Payment</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>MS-DRG 9: 100</td>
<td>$3,698,358</td>
<td>N/A</td>
</tr>
<tr>
<td>2011</td>
<td>MS-DRG 14: 24</td>
<td>$4,079,211</td>
<td>10.3%</td>
</tr>
<tr>
<td>2012</td>
<td>MS-DRG 14: 24</td>
<td>$3,933,939</td>
<td>-3.6%</td>
</tr>
<tr>
<td></td>
<td>MS-DRG 16: 62</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MS-DRG 17: 14</td>
<td></td>
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</tr>
</tbody>
</table>

BMT = bone marrow transplant; auto = autologous
Confidential and Proprietary © December 2011 Sg2
SHIFT IN PAYOR MIX FOR BMT

2007 Payors

- Medicaid
- Medicare
- Comm HP
- Self Pay

2012 Payors

- Medicaid
- Medicare
- Comm HP
- Self Pay

NMDP presentation at HFMA National Institute Conference 2012
The Network performed over 800 Transplants in 2012

- **Auto**: 527 (65%)
- **Allo**: 286 (35%)

Subcategories:
- **Allo-R**: (42%)
- **Allo-URD**: (44%)
- **Cord**: (14%)
DATA USED FOR THE MEDICARE BILLING REVIEW

- Inpatient Medicare claims with dates of service from 01/01/2011 - 12/31/2011
- Specific claim level data elements (UB-04 data) requested
- Data from the following 5 hospitals analyzed:
  - Centennial Medical Center (CMC)
  - OU Medical Center (OUMC)
  - Medical City Dallas Hospital (Med City)
  - Methodist Hospital (Methodist)
  - P-SL Medical Center (PSL)
THE DATA REVIEW PROCESS

- Claims data comparison to facility specific HCT lists
- Review of inpatient claims
- Distribution of auto vs. allo related vs. allo unrelated
- Review of diagnoses and procedures
  - # of secondary diagnoses and procedures
  - Presence of donor source code
  - Review of diagnoses reported for MS-DRG 0117
- Examination of revenue code 0819
  - Presence or absence of the revenue code by transplant type
  - Review of the billed dollar amount
120 HCT in 119 patients (17% of the transplants for 2011)
<table>
<thead>
<tr>
<th>Patient Characteristics</th>
<th>Number of Patients (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median age, years (range)</td>
<td>67 (28-79)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>69 (58)</td>
</tr>
<tr>
<td>Female</td>
<td>50 (42)</td>
</tr>
<tr>
<td>Diagnosis</td>
<td></td>
</tr>
<tr>
<td>Myeloma</td>
<td>62 (52)</td>
</tr>
<tr>
<td>Lymphoma</td>
<td>35 (29)</td>
</tr>
<tr>
<td>Acute Leukemia</td>
<td>17 (15)</td>
</tr>
<tr>
<td>Other</td>
<td>5 (4)</td>
</tr>
<tr>
<td>Allogeneic</td>
<td>23 (19)</td>
</tr>
<tr>
<td>LOS Related</td>
<td>30 days (0-123)</td>
</tr>
<tr>
<td>LOS Unrelated</td>
<td>25 days (5-55)</td>
</tr>
<tr>
<td>Autologous</td>
<td>97 (81)</td>
</tr>
<tr>
<td>LOS</td>
<td>18 days (2-39)</td>
</tr>
</tbody>
</table>
### Reporting Practices

#### Donor Source Code & Revenue Code 0819

<table>
<thead>
<tr>
<th>Code</th>
<th># Pts</th>
<th># Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Donor Source</td>
<td>23</td>
<td>Matched Sib 7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unrelated    9</td>
</tr>
<tr>
<td>Rev Code 819</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allo</td>
<td>23</td>
<td>18</td>
</tr>
<tr>
<td>Auto</td>
<td>97</td>
<td>31</td>
</tr>
</tbody>
</table>

**Summary:**
- CMS has declined to consider a separate DRG for Unrelated donor transplants because of under-reporting of donor source.
- Revenue code 819 only reported for 2/3 of allogeneic SCT.
- Revenue code 819 also reported for 1/3 of autologous SCT.
SECONDARY DIAGNOSES DRIVE MS-DRG ASSIGNMENT

All 18 patients submitted as MS-DRG 0016 (Auto with MCC/CC) had secondary diagnoses supporting the DRG.

Five of the eight patients submitted as MS-DRG 0017 (Auto w/o MCC/CC) had documentation that warranted closer review for additional patient clinical condition information that might have appropriately resulted in MS-DRG 0016. The patients’ reported conditions were the following:

- Hypertension
- Chronic Kidney Disease
- Epilepsy
- Esophageal reflux
CONCLUSIONS

• Proper reporting of revenue code 819 is required to better facilitate future rate setting:
  • Reporting donor related search and cell procurement charges using revenue code 0819 on the transplant claim/transplant date of service, AND,
  • Reporting an appropriate dollar charge.

• Donor source code needs to be reported to facilitate the analysis of cost differences between related and unrelated transplants

• Proper reporting of CC/MCC needed to justify MS-DRG 16 which is associated with a higher payment

• Current DRG payments for Medicare beneficiaries do not cover the costs of the transplant episode
NEXT STEPS

• Developed a work group with representatives from
  • Sarah Cannon
  • Parallon, our centralized revenue cycle and revenue integrity organization
  • BMT programs

• Objectives of work group
  • Develop action plan based on the findings
    - A tool for the Revenue Integrity Auditors to use during their routine audits
    - Education for our Physicians and HIM Coders
Questions