



IMPLEMENTATION OF A PROGRAM ASSESSMENT ACROSS A NETWORK OF 7 HCT PROGRAMS TO ASSESS RISKS ASSOCIATED WITH CLINICAL OUTCOMES BASED ON THE 2015 CIBMTR CENTER-SPECIFIC SURVIVAL SUPPORT

February 23, 2017

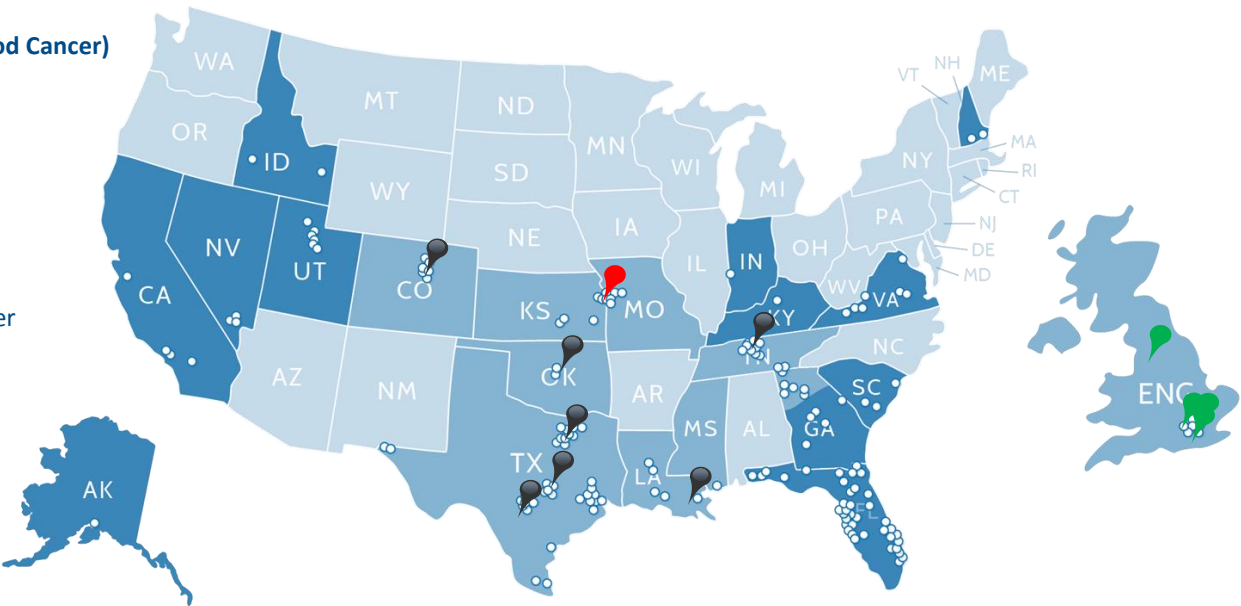
DISCLOSURE STATEMENT

I have no relevant disclosures

SARAH CANNON/HCA PROGRAMS

Sarah Cannon Blood Cancer Network (BMT & Blood Cancer)

- Colorado Blood Cancer Institute
Denver, CO
- Tulane Medical Center
New Orleans, LA
- Oklahoma University Medical Center
Oklahoma City, OK
- Sarah Cannon Center for Blood Cancer
Nashville, TN
- South Austin Medical Center
Austin, TX
- Medical City Dallas Hospital
Dallas, TX
- Texas Transplant Institute
San Antonio, TX



Sarah Cannon Blood Cancer Network program (Blood Cancer)

- Sarah Cannon Center for Blood Cancer at Research Medical Center
Kansas City, MO

HCA BMT Program outside of SCBC Network

- Harley Street at UCH (A)
- Harley Street Clinic (P)
- London Bridge (A)
- London, UK
- The Christie Clinic
- Manchester, UK

SARAH CANNON BLOOD CANCER NETWORK



~1,000

BMTs performed each year



1 Quality Plan

14

Standardized BMT pathways

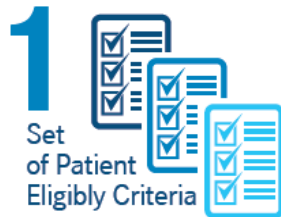
~2,300

patients enrolled in heme trials since inception



~14,000

blood and marrow transplants (BMTs) performed since inception of the first program



1 Set of Patient Eligibility Criteria

Comprehensive Patient Management Software



350+

blood cancer publications to date



Together, we provide world-class blood cancer care close to home for tens of thousands of patients

CIBMTR SURVIVAL OUTCOMES

2014 - 2015 TRANSPLANT CENTER-SPECIFIC SURVIVAL

Survival Statistics for Related and Unrelated Allogeneic Transplant				
	2014 Survival Outcome Results (2010 – 2012 timeline)		2015 Survival Outcome Results (2011 – 2013 timeline)	
	Actual Survival %	Predicted Survival % (95% CI)	Actual Survival %	Predicted Survival% (95%CI)
MCDH Dallas	66.5	64.1 (55.8-72.5)	64.5	66.3 (58.0-75.0)
PSLMC Denver	69.6	67.7 (62.3-73.2)	67.9	66.6 (61.6-71.9)
TCMC Nashville	59.4	70.7 (55.4-85.4)	52.5	70.4 (56.6-83.6)
TMC New Orleans	60.6	73.6 (58.6-87.5)	62.8	74.3 (59.7-88.0)
OUMC Ok City	61.7	68.1 (60.1-76.2)	64.1	67.6 (58.7-76.4)
MH San Antonio	62.1	64.9 (59.0-70.9)	59.1	66.5 (60.8-72.6)

2013 SORROR HCT-CI SCORING COMPARISON – PRE AUDIT (2015 CIBMTR REPORT)

Red indicates
the % is less
than the
National CI
average

2013 URD	MCDH	CBCI	TCMC	TMC	OUMC	TTI	National
0	39%	35%	14%	17%	22%	54%	34%
1	0%	19%	14%	17%	11%	26%	13%
2	11%	24%	14%	17%	11%	7%	14%
3	22%	8%	0%	17%	33%	11%	16%
4	17%	5%	29%	17%	22%	0%	10%
≥ 5	11%	8%	29%	17%	0%	2%	12%

Red indicates
the % is less
than the
National CI
average

2013 MRD	MCDH	CBCI	TCMC	TMC	OUMC	TTI	National
0	42%	56%	36%	67%	22%	66%	37%
1	17%	11%	0%	0%	11%	16%	14%
2	8%	14%	27%	0%	11%	6%	13%
3	25%	8%	9%	33%	22%	3%	16%
4	8%	6%	18%	0%	0%	3%	8%
≥ 5	0%	6%	9%	0%	33%	3%	12%

SARAH CANNON IMPLEMENTED A DETAILED PROGRAM ASSESSMENT

In collaboration with the CEOs, Medical Directors and the BMT program staff, Sarah Cannon staff performed assessments at each of the BMT programs during the first 6 months of 2016. We reviewed 318 Allogeneic Charts

The objectives of the assessment were:

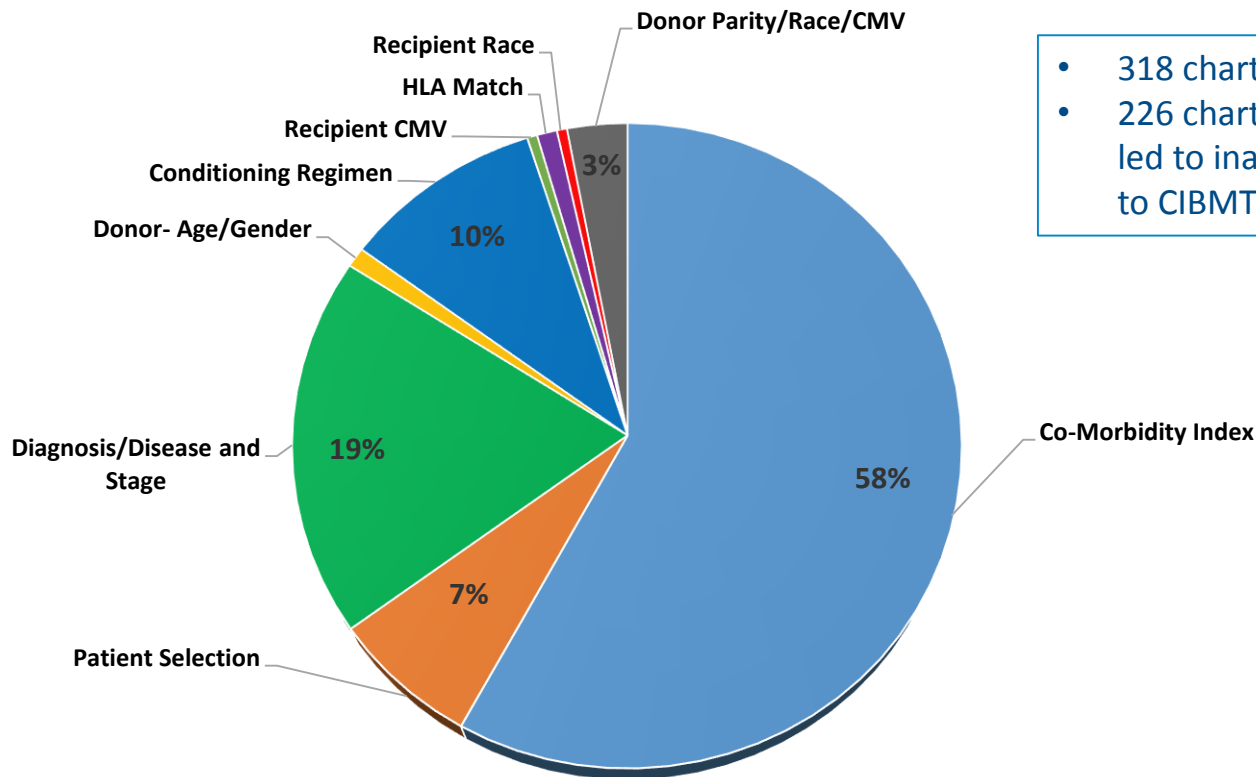
- To determine if transplanted patients met the SC patient selection criteria, which were developed and approved by the Sarah Cannon Blood Cancer Network physicians
- To determine accuracy of key data fields against source documentation
- To collaborate on forward-thinking processes to strengthen patient outcomes

The assessment consisted of reviewing a large sample of the following:

- Mortality Review for patients who died within 1 year of transplant 2012 – 2014
- Review Pre-Ted Reports for allogeneic transplant patients 2012-2014
- Review Patient Selection Assessment
- Review Disease status reporting process review
- Assess Program's long term follow-up process

During the review of patient records we found consistent issues impacting data integrity that led to inaccurate reporting of patient risk to CIBMTR

SUMMARY OF FINDINGS FROM OUR CHART REVIEW

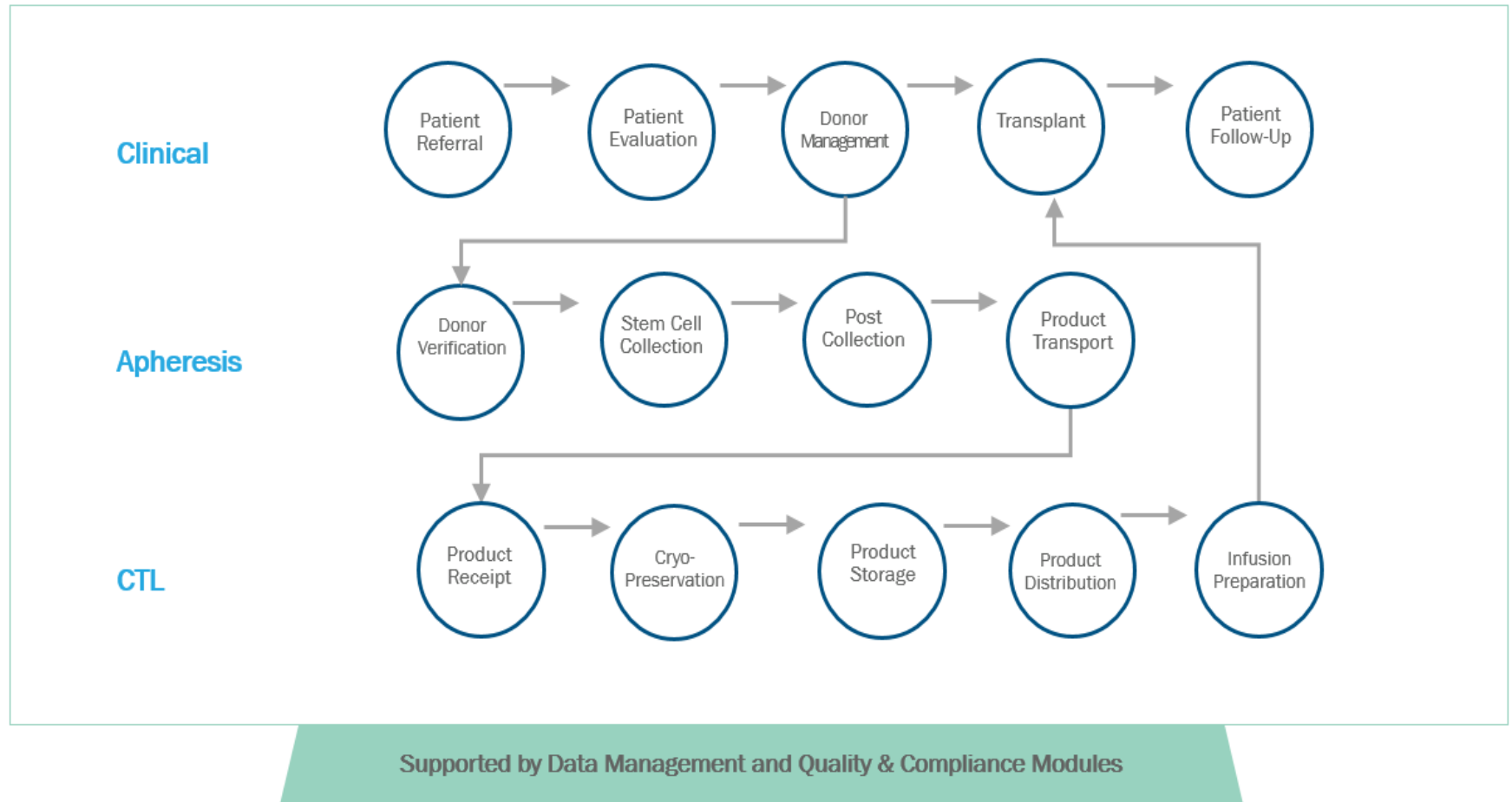


- 318 charts reviewed
- 226 charts had data integrity issues, which led to inaccurate reporting of patient risk to CIBMTR

CORRECTIVE ACTION PLAN

Identified Opportunity	Actions
Sorrer HCT-Comorbidity Index	<ul style="list-style-type: none"> Implement a pre-transplant dictation template. Provide education on how to score a patient using the Sorror Comorbidity Index, using Dr. Sorror's article "How I assess the Comorbidity before hematopoietic cell transplantation". Include physician review and sign-off.
Karnofsky Score	<ul style="list-style-type: none"> Include the Karnofsky score in the pre-transplant dictation template. Provide education on how to score a patient using the Karnofsky score.
Disease Status	<ul style="list-style-type: none"> Implement a process to ensure disease status at time of transplant is documented in the pre-transplant dictation. Implement a process to ensure disease status is verified within 60 days prior to transplant.
Conditioning regimen	<ul style="list-style-type: none"> Programs were reporting the same conditioning regimens under multiple categories of intensity. Recommended implementation of the CIBMTR conditioning regimen intensity guidance.
Long Term Follow-up	<ul style="list-style-type: none"> Implement a comprehensive long term follow-up program to ensure post-transplant allogeneic patients receive appropriate long term care. Hire a long term follow-up/post-allogeneic transplant coordinator.
Data Management	<ul style="list-style-type: none"> Submit all corrected data fields, based on the errors identified to CIBMTR. Provide support to data coordinators to include physician review of key data fields.
StafaCT Implementation	<ul style="list-style-type: none"> Full adoption of StafaCT

WORKFLOW SOFTWARE SOLUTION, ALLOWING COMPLAINTS MANAGEMENT



STAFCT – CMI SCREEN (2 OF 2 SCREENS TO BE COMPLETED BY PHYSICIAN)



e-Sign

Save

Comorbidity Index

8	Obesity	<input type="checkbox"/> Body mass index > 35 (adults) <input type="checkbox"/> Body mass index-for-age > 95% percentile (children)	
9	Infection	<input type="checkbox"/> Requiring anti-microbial treatment before, during, and after the start of conditioning	
10	Rheumatologic	<input checked="" type="checkbox"/> Requiring Treatment	2
11	Peptic Ulcer	<input type="checkbox"/> Confirmed by endoscopy and requiring treatment	
12	Renal	<input type="checkbox"/> Serum creatinine > 2mg/dl (or > 177µmol/L) <input checked="" type="checkbox"/> On dialysis <input type="checkbox"/> Prior renal transplantation	2
13	Pulmonary-Moderate	<input type="checkbox"/> DLco corrected for hemoglobin 66-80% of predicted <input type="checkbox"/> FEV1 66-80% of predicted <input type="checkbox"/> Dyspnea on slight activity	
14	Pulmonary-Severe	<input type="checkbox"/> DLco corrected for hemoglobin <= 65% of predicted <input type="checkbox"/> FEV1 <= 65% of predicted <input type="checkbox"/> Dyspnea at rest or requiring oxygen therapy	
15	Heart Valve Disease	<input type="checkbox"/> Except asymptomatic mitral valve prolapse	
16	Prior Solid Malignancy	<input type="checkbox"/> Treated with surgery, chemotherapy, and/or radiotherapy, excluding non-melanoma skin cancer	
17	Hepatic-Moderate/severe	<input type="checkbox"/> Liver cirrhosis <input type="checkbox"/> Bilirubin > 1.5xULN <input type="checkbox"/> AST/ALT > 2.5xULN	

Total Score 9

Task Status

Reviewed By

Select

e-Sign

OK

Last Reviewed On

TTI'S 2013 SORROR HCT-CI SCORING COMPARISON – PRE AUDIT VS POST-AUDIT

2013 URD	TTI 2015 CIBMTR	TTI 2016 CIBMTR
0	54%	↓ 17%
1	26%	↓ 11%
2	7%	9% ↑
3	11%	24% ↑
4	0%	20% ↑
≥ 5	2%	20% ↑

2013 MRD	TTI 2015 CIBMTR	TTI 2016 CIBMTR
0	66%	↓ 28%
1	16%	↓ 13%
2	6%	9% ↑
3	3%	25% ↑
4	3%	13% ↑
≥ 5	3%	9% ↑

All Allogeneic Charts were reviewed at Texas Transplant Institute, having a significant positive impact on CI Scoring!

Data Sources: 2015 & 2016 CIBMTR Final Transplant Center-Specific Survival Report

LONG TERM FOLLOW UP – PROGRAM DEVELOPMENT

- Identified the need to implement a comprehensive long term follow-up program
- Physicians agreed to develop a standardized approach across the Network
- An APP lead taskforce was formed to establish standard of care for patients in the LTFU setting
- Goals of the taskforce
 - ☐ Define LTFU model
 - ☐ Determine Staffing/Resources
 - ☐ Scheduling/Frequency of Visits
 - ☐ Develop Order Sets/Pathways
 - ☐ Develop Practice Guidelines
 - ☐ Develop Discharge Guidelines
 - ☐ Develop Communication Plan for Referring Physicians
 - ☐ Determine Consulting Services needed for LTFU care
 - ☐ Work with StafaCT to develop a Post-Transplant module (Long-term Care/Survivorship)
- Other Key Considerations as we build our LTFU program is the work the NMDP/Be The Match is doing around patient-centered outcomes, which is being led by Dr. Linda Burns



THANK YOU

I would like to recognize and sincerely thank all of the staff across the Sarah Cannon Blood Cancer Network who participated in the assessments at our 7 HCT Programs!