Greetings from…

NYU Medical Center
School of Medicine and Hospitals Center

New York University College of Nursing

Developing a Quality Dashboard An Evidence Based Approach

PURPOSE/OBJECTIVES:

1. To discuss the process that NYUHC Oncology Nursing Services used to develop and maintain a quality dashboard.

2. To define the variables that influence indicator selection, benchmarks, and the evaluation/interpretation of outcomes

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The Quality Dashboard Needs To Be Aligned With Organizational and National Initiatives and Resources

World-Class Integration

Care, Discovery & Education

Advanced Care provides focus for Better Science

Cutting Edge Research enables Better Care

Immersion at the frontiers of medicine provides Better Education

VARIABLES THAT INFLUENCE SELECTION OF ONCOLOGY INDICATORS, BENCHMARKS AND OUTCOMES

- Vision, mission, strategic plan for the organization and oncology program
- Program Characteristics
- Treatment Patterns
- Patient Characteristics (Case Mix)

A Hematopoietic Stem Cell Transplant (HSCT) Clinical, Cellular, and Quality Dashboard: An Evidence Based Approach

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DEVELOPMENT OF AN ONCOLOGY QUALITY PLAN AND DASHBOARD STARTS WITH THE MISSION STATEMENT !

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NYULMC HSCT PROGRAM MISSION STATEMENT

- **To provide state of the art care to patients requiring autologous or allogeneic transplant.**

  - To provide regionally a program that allows for selected transplant patients to receive some or all of their care as outpatients.

  - To integrate the basic and clinical research objectives of the Stem Cell Transplant Service with the Programs in the NYU Cancer Institute and NCI Cancer Center Grant.

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NYULMC HSCT PROGRAM MISSION STATEMENT (cont.)

- **To provide state of the art care to patients requiring autologous or allogeneic transplant (cont.).**

  - To establish and accrue patients to a robust clinical trials portfolio focused on important scientific issues in HSCT.

  - To broaden the pool of under-represented donors in the present national marrow donor program (NMDP) and other bone marrow registries.

  - To establish a focus on conducting transplants in under-served patient populations

  - To provide a state of the art teaching experience for fellows in the Division, interns and Residents in the School of Medicine, and medical ad nursing students

Review and Selection of Indicators, Benchmarks and Outcomes

- Agency (quality, regulatory) requirements
- Pay for performance and consumer health care directives
- Randomized clinical trial outcomes
- International and national research data bases
- Survey outcomes
- Best practices among centers
- Institutional data reporting

REVIEW METHODOLOGY: INDICATOR/BENCHMARK/OUTCOMES

1) Priority level for indicators based on clinical relevance, agency requirements, pay for performance and consumer health care directives: 0 – 3 SCALE:

   0 = absent/anecdotal

   3 = highest priority/level of evidence (RCT outcomes and collective best practice experience).

2) Benchmarks: Relationship between process and outcomes: strength & quality of evidence

   0 = absent anecdotal

   3 = cause and effect (RCT outcomes: can generalize to NYULMC pt population.

4) Outcomes: Measurable with numerator and denominator

5) Ease of data collection (0 – unavailable, 1 – chart abstraction, 2 – several electronic sources, 3 one electronic source).

NYULMC HSCT QUALITY MANAGEMENT DASHBOARD A SNAP SHOT VIEW

- Clinical, Cellular, Quality Dashboard

A SNAPSHOT of NYULMC Oncology Services HPCT Program
Quality Management Dashboard

INDICATORS	PRIORITY LEVEL	BENCHMARK/ THRESHOLD	RELATIONSHIP: PROCESS AND OUTCOMES	NUMERATOR/ DENOMINATOR	AVAILABLIITY OF DATA
0 – 3 SCALE: 0 = absent/anecdotal, 3 = highest priority/level of evidence (CT outcomes and collective best practice experience) Ease of data collection: 0 = data not available, 3 one electronic data source					
SNAPSHOT OF QUALITY MANAGEMENT					
Patient discussed in Interdisciplinary Conference	Priority 3	Level 3: 100%:	Level 1 -2	# of HPCT pts discussed/# of HPCT pts	Level 1 (Recorded at meeting and entered into excel).
Clinical and Cell Therapy Laboratory Investigation /Summary	Priority 3	Level 3: Any deviation in established indicator benchmark /outcome	Level 2: RCA/FMEA/Other = safer organization	# of benchmark deviations/# of investigations	Level 1 but very high priority
Patient Satisfaction	Priority 3	Press Ganey/HCAPS Benchmarks - varied	*Level 1 -2, Likelihood to recommend a global measure of satisfaction.	Need to determine	Level 3
*There is a need to examine patient satisfaction indicators relevant to HPCT standards that include but are not limited to: access to timely care, adequacy of education/information, emotional support, out of pocket expenses, satisfaction associated with IPOP model.					
Antibiotic start for neutropenic fever	Priority 3	Within 30 minutes of neutropenic fever.	Level 3	# of pts with neutropenic fever start antibiotic > 30 minutes/ # of pts with neutropenic fever	Level 2

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NYULMC HSCT QUALITY MANAGEMENT DASHBOARD A SNAP SHOT VIEW cont…

A SNAPSHOT of NYULMC Oncology Services HPCT Program
Quality Management Dashboard

INDICATORS	PRIORITY LEVEL	BENCHMARK/ THRESHOLD	RELATIONSHIP: PROCESS AND OUTCOMES	NUMERATOR/ DENOMINATOR	AVAILABLIITY OF DATA
0 – 3 SCALE: 0 = absent/anecdotal, 3 = highest priority/level of evidence (CT outcomes and collective best practice experience) Ease of data collection: 0 = data not available, 3 one electronic data source					
SNAPSHOT OF QUALITY MANAGEMENT cont.					
Clinical Trial Enrollment	Level 3	Goal: 100% of eligible pts enrolled	Level 3 Clinical, Safety, Quality	% Eligible/% Enrolled	Level 3: one electronic source
Readmissions	Level 3	Benchmark below those admissions clearly defined as avoidable	Level 2 Clinical, Safety, Quality	% unavoidable/ /% admitted	Level 3
Length of Stay	Level 3	Unit = complex ICU/SDU, general chemo, and general medicine beds	Level 2 Clinical, Safety, Quality	% unavoidable/ /% admitted	Level 0 - 1
SNAPSHOT OF CLINICAL MANAGEMENT					
Engraftment: Absolute neutrophil count 500 X 109/L for more than 3 consecutive days	Level 3:	Level 3 Range 11 days to > 28 days NYULMC Benchmark < 14	Level 3: Highest Level of Evidence	# didn't reach benchmark/# transplanted	Level 2
SNAPSHOT OF CELLULAR MANAGEMENT					
CD 34+ Count	Level 3	3 million = engraftment, less fungal and improved OS	Level 2	Varied based on patient population/treatment	Level 2

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PROGRAM CHARACTERISTICS INFLUENCE BENCHMARKS

- Size of HSCT unit and outpatient program
- Consistent standard of care for inpatient and outpatient adult and pediatric oncology program
- Projected growth
- Patterns of practice/Referral base
- Current financial requirements and projections
- Community driven donor program goals

Cancer Institute NYU Langone Medical Center

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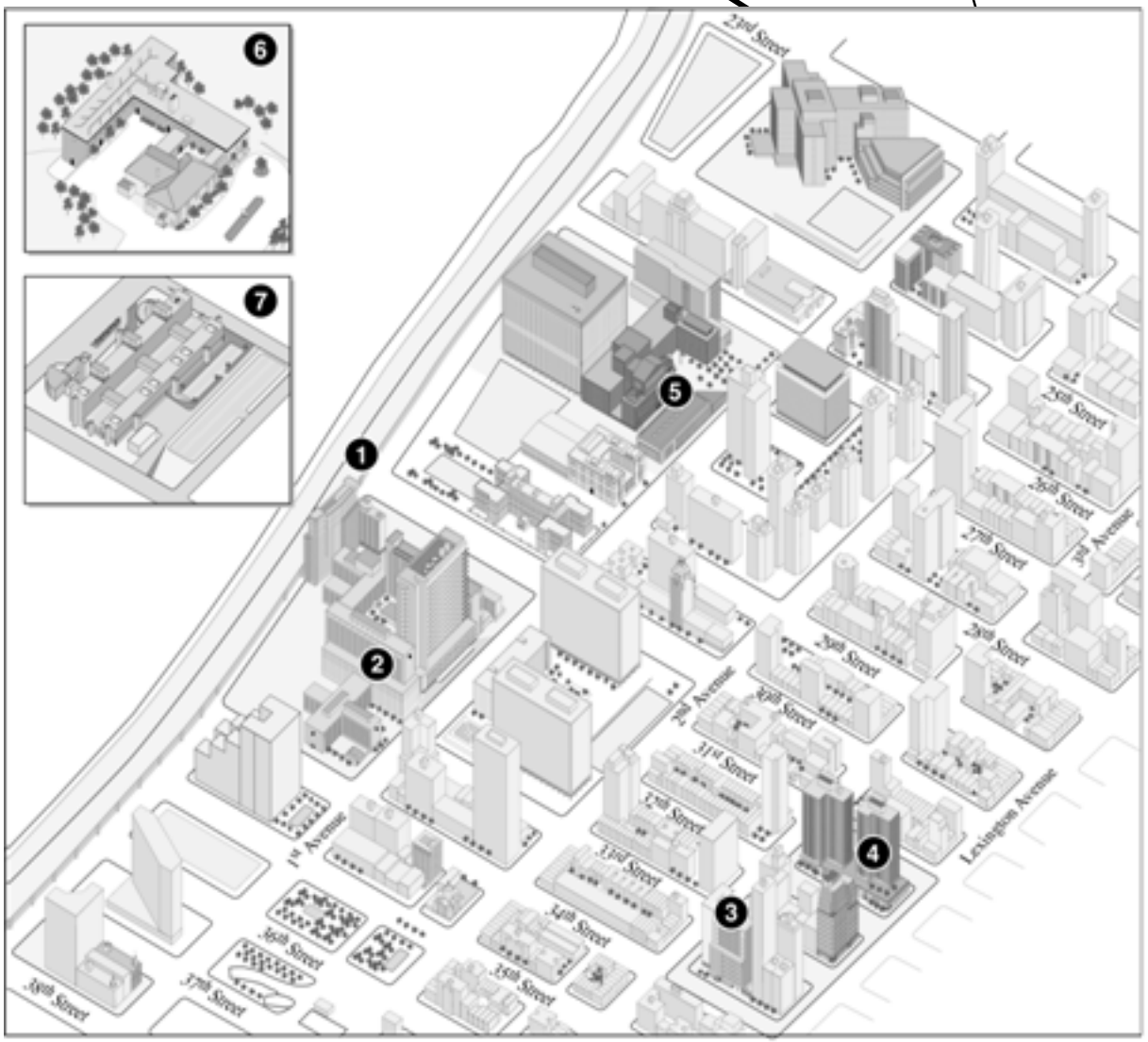


1. Smilow Research Center - 550 1st Ave.
2. Tisch Hospital - 560 1st Ave.
3. Clinical Cancer Center - 160 E. 34th St.
4. Hassenfeld Children's Center - 160 East - 32nd. St.
5. Bellevue Hospital - 462 1st. Ave.
6. Nelson Institute - Tuxedo, NY
7. Woodhull Hospital, 760 Broadway, Brooklyn, NY 11206

THE TREATMENT PATTERNS THAT INFLUENCE BENCHMARKS

Types of conditioning

- Myeloablative
- Non-myeloablative (RIC)
- Radiation based
- Donor lymphocyte Infusions

Stem cell Source

- Bone marrow
- Peripheral blood stem cells
- Umbilical Cord

Type of transplant

- Autologous
- Allogeneic
- Matched Related
- Matched Unrelated
- Haploidentical
- T Cell Depleted

PATIENT CHARACTERISTICS INFLUENCING BENCHMARKS

- Disease
- Disease status
- Previous therapies
- Co-morbidities
- Functional Status
- Age
- Travel time to hospital
- Availability of a caregiver 24 hours
- Competency and commitment of pt and caregivers
- Psychological, social, financial and spiritual status

DISCUSSION

- An HSCT quality dashboard is used to measure the quality, safety, effectiveness, and efficiency of patient care and to continuously identify opportunities for improvement.
- Identifying HSCT indicators with meaningful outcomes and benchmarks is essential to determine quality of care and provides direction for program management and growth.

Limitations

- Evidence based consensus regarding how variations in characteristics of practice setting, patient population, and treatment selection influence HSCT benchmarks and outcomes is lacking.

- A comprehensive list of HSCT indicators, benchmarks and outcomes specific to variations in practice settings, patient population and treatments is lacking and is an essential component of ensuring that delivery of HSCT care " …. is built around the core need for health care to be: safe, effective, patient-centered, timely, efficient, and equitable …." (Institute of Medicine, 2001, p. 3).

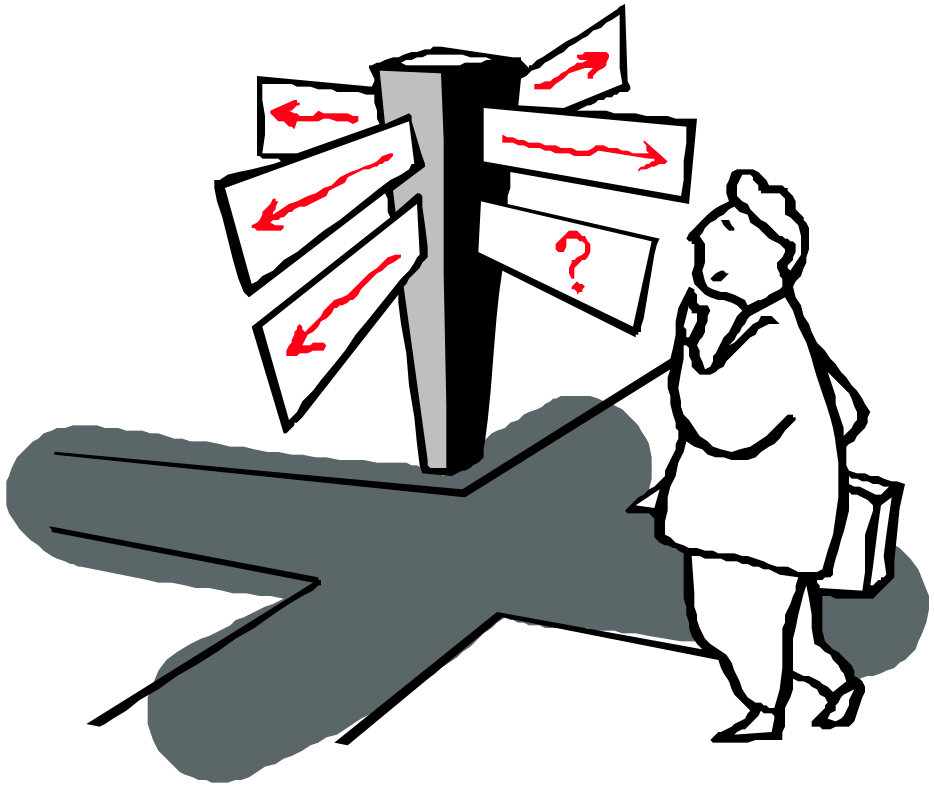
RECOMMENDATIONS COLLABORATION IS KEY

- Association of Pediatric Hematology Oncology Nurses (APHON)
- Center for International Bone Marrow Transplant Registry (CIBMTR)
- Foundation for Accreditation of Cellular Therapies (FACT),
- NDNQI
- Oncology Nursing Society (ONS) [BMT SIG group],
- United Health Consortium (UHC)

Next Steps: Network with these agencies to address limitations:

- Benchmarks that consider: Program Characteristics; Treatment Patterns; Patient Characteristics (Case Mix)

Comments, Questions?
THANK YOU!



Abbreviations

- Association of Pediatric Hematology Oncology Nurses (APHON)
- Foundation for Accreditation of Cellular Therapy (FACT)
- Hematopoietic Stem Cell Transplant (HSCT)
- Immune Competence (IC)
- Inpatient/Outpatient (IPOP)
- Length of stay (LOS)
- Matched Unrelated Donors (MUDs)
- Myeloablative (MA)
- New York University Langone Medical Center (NYULMC)
- Overall Survival (OS)
- Quality of Life (QOL)
- Reduced intensity conditioning – non myeloablative (RIC)
- Regimen related toxicity (RRT)
- Special Interest group (SIG)
- Standard of Care (SOC)
- Total Body Irradiation (TBI)