
Bree Collaborative | Oncology Care Workgroup

March 3rd, 2020 | 3:00 – 4:30

Foundation for Health Care Quality

705 2nd Avenue, Suite 410 | Seattle, WA 98104

MEMBERS PRESENT

Hugh Straley, MD, (Chair) Bree Collaborative
Chair

Blair Irwin,* MD, MBA, Oncology, Multicare
Regional Cancer Center

Camille Puronen,* MD, Oncologist, Kaiser
Permanente Washington

Stefanie Hafermann,* Regence

Nancy Thompson,* RN, MS, AOCNS, Director,
Quality & Clinical Practice Swedish Cancer
Institute

Andra Davis,* PhD, MN, BSN, Assistant
Professor, Vancouver, Washington State
University

Laura Panattoni,* PhD, Staff Scientist,
Hutchinson Institute for Cancer Outcomes
Research

Sibel Blau,* MD, Oncologist, Northwest Medical
Specialties

STAFF AND MEMBERS OF THE PUBLIC

Ginny Weir, MPH, Bree Collaborative

Alex Kushner, Bree Collaborative

Sasha Joseph,* MD, Medical Director of
Medical Oncology, MultiCare

* By phone/web conference

CHAIR REPORT & APPROVAL OF MINUTES

Hugh Straley, MD, Bree Collaborative Chair, and Ginny Weir, MPH, Bree Collaborative welcomed members to the workgroup and those present introduced themselves.

Motion: Approval of February 4th Minutes

Outcome: Passed with unanimous support.

PRESENTATION: NURSE LED SYMPTOM SUPPORT, DR. DAVIS

Andra Davis, PhD, MN, BSN, Assistant Professor, Vancouver, Washington State University, gave a presentation titled “Integrating Research into Practice: Nurse Telephone Support to Improve Outcomes and Emergency Room Utilization for Patients Receiving Chemotherapy”.

- This was review of a study she conducted with PeaceHealth whose purpose was to “evaluate integration of evidence-based symptom guides to provide nurse-led telephone-based symptom support during chemotherapy.
- Dr. Davis reviewed the structure of the COSTaRS Practice Guides that she used as a knowledge to action framework.
- Dr. Straley asked if COSTaRS are used extensively throughout Canada; they are, particularly because they have been integrated into the EHR there. However, COSTaRS’ impact on ER utilization has only started to be studied.
 - COSTaRS not used in the US currently.
- COSTaRS addresses each symptom of Cancer care across 5 categories: Rating Symptom Severity, Triage, Review Medications, Self-Care Strategies, Summarize and document plan.
- For the study, data was gathered via nurse surveys for implementation outcomes. For client outcomes, patient experience and unplanned utilization of the healthcare system was reviewed.
- Around 60% of ED visits occurred within a week of treatment and 49.5% of ED visits were discharged for home/self-care.

- When doing telephone check-ins, nurses gathered data through COSTaRS as a guide and then created a narrative of the call. Ideally COSTaRS would be integrated into the EHR.
- Nurse outreach increased patient satisfaction.
- Lessons learned: identifying and engaging key stakeholders; a leadership climate that supports innovations and best practices; taking the time to nurture key relationships, gather preliminary data, contextualize your plan; readying yourself to address the unintended or unspoken barriers that surface; expect something to not work well or “embrace dynamism”

PRESENTATION: DEEP LEARNING PREDICTION MODEL FOR HOSPITALIZATIONS

Laura Panattoni, PhD, Staff Scientist, Hutchinson Institute for Cancer Outcomes Research gave a presentation on Fred Hutch’s “assessment of a longitudinal deep learning model based on cancer registry linked claims data to predict hospitalization during chemotherapy”.

- Dr. Panattoni reviewed current academic algorithms predicting hospitalization. These vary by population, hospitalization outcome, & timeframe. No evidence yet that clinical implementation (e.g. risk model + intervention) leads to less hospitalization.
 - Current algorithms do not account for changes in patient’s status over time.
- Deep learning recurrent neural networks have been shown to have high accuracy predicting hospitalization in general populations w/ EHR data. They use a Reverse Time Attention Model.
- The objective of the study was to find out if a RETAIN model using registry-linked claims data could predict a cancer patient’s daily likelihood of an ED Visit and unplanned hospitalization in the 6 months after chemotherapy.
- The model works by inputting sequences of patient data over time; it weighs the importance of each day and variable within that day; more recent days receive higher weights.
- Data from the study found a weak relationship between chemo administration and ED visits. Looking at inpatient visit over time, weak relationship between chemo administration and IP stay. More IP stays than ED visits.
- RETAIN lists the weight of each variable as predictors for ED visits for each day post administration. Weights each of the 858 total variables for each individual day post treatment.
- Study found that the RETAIN model does help catch more patients who end up having actual ED visits.
- Dr. Straley commented that it would be great to know, if at the initiation of treatment, there is a correlation between eventual ED visits and data such as diagnosis and functional status.
- Dr. Straley asked if clinical data on a few key variables would help narrow down the results and make them more accurate. Dr. Panattoni agreed that it would be worth trying to write a deep learning model with 5 or 6 lab factors.
- Sibel Blau,* MD, Oncologist, Northwest Medical Specialties said that her practice is using a deep learning model to predict risk for mortality and ED visits. It has helped them to tailor care and they are planning to publish their data. The program is called JVION.

Action Item: Dr. Blau to present on JVION to the group.

GENERAL DISCUSSION AND PRESENTATION DEBRIEF

Ms. Weir asked the group how the presentations can help inform the group’s recommendations and conversations going forward.

- Dr. Straley asked if there is an opportunity to look at pilots of risk stratification using EMR.
 - Camille Puroen,* MD, Oncologist, Kaiser Permanente Washington, mentioned efforts at Kaiser.
 - The Bree could highlight the need for pilots using clinical data and/or uniting clinical and claims data.

- A member mentioned that it would be prudent to start vetting proprietary tools. Dr. Panattoni said she would be happy to do this.
- Ms. Weir said that looking into nurse-led symptom support will be important. Risk stratification will be important.
 - The article by Handley et al. cited standardizing clinical pathways for symptom management, developing new loci for urgent cancer care, and using early palliative care as important factors.

GOOD OF THE ORDER

Dr. Straley thanked all for attending and adjourned the meeting.

DRAFT