Bringing the Fight to Cancer.

2016 Annual Report

Baylor Scott & White
MEDICAL CENTER
WAXAHACHIE

Quality Study

Improving the Experiences of Cancer Patients Receiving Pre-Meds Before Chemotherapy Within a Timely Manner at Baylor Scott & White Medical Center – Waxahachie Cancer Center

Background

A diagnosis of cancer not only comes with a frightening unforeseen health future for the individual but also comes with many other bothersome dilemmas that health care professionals often put on the backburner. One of those nuisances is a main side effect of chemotherapy: nausea. According to the Mayo Clinic, *"Chemotherapy is a drug treatment that uses powerful chemicals to kill fast-growing cells in your body … Though chemotherapy is an effective way to treat many types of cancer, chemotherapy treatment also carries a risk of side effects."*[1]

Some chemotherapy patients might notice only slight waves of nausea, while others describe their nausea as debilitating. According to Cancer.net, *"The best way to manage nausea and vomiting is to prevent them. So it is important to talk with your health care team before you start treatment. Medications given prior can prevent nausea in most patients."*[2]

Within Baylor Scott & White Health's values, innovation is listed. "Innovation is discovering new concepts and opportunities to advance our mission."[3] At Baylor Scott & White – Waxahachie Cancer Center, we want to lead the health system in innovative practices. One of those is delivering pre-medications to our chemotherapy patients within a timely manner prior to their treatment. We also want to deliver chemotherapy timely once pre-meds are administered. This innovative change in practice costs nothing to implement, and it allows the patient to receive the most relief from chemotherapy side effects like nausea.

Action Taken

This project included a Plan/Do/Check/Act (PDCA) approach to improve times related to patients receiving their chemotherapy within a timely manner of being pre-medicated for side effects. This improvement initiative was implemented because there was a delay in outpatient chemotherapy patients receiving their chemotherapy after administration of pre-meds. The average time noted in December 2015 for a patient to receive his or her chemotherapy after pre-meds was 60 minutes. The goal is 95 percent within 30 minutes.

PDCA Cycle 1

Plan: To improve the chemotherapy patient population times of being pre-medicated to receiving chemotherapy within a 30 minute window.

Do: The team reviewed previous months and the time it took from pre-medication to the patient receiving his or her chemotherapy treatment. The team saw a need for improvement based on patients' feedback and previous data. The team began an education process to increase awareness among the care team staff of the importance of the patients receiving their chemotherapy within a 30-minute timeframe of being pre-medicated.

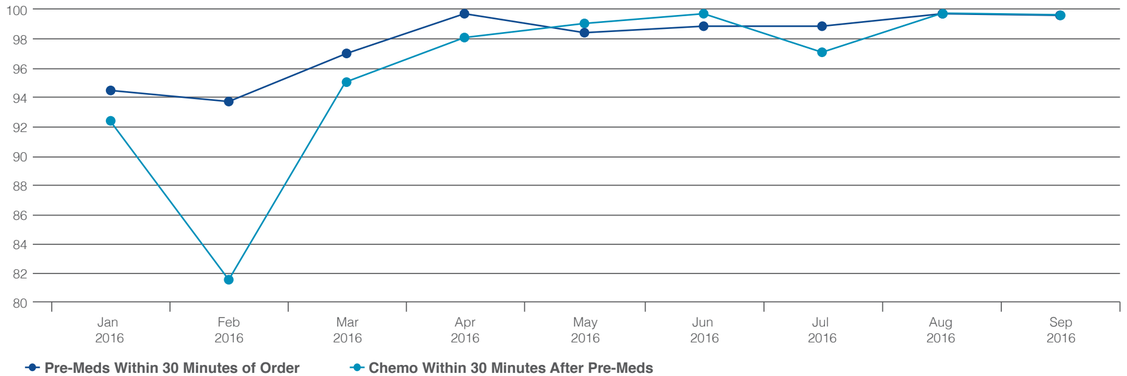
Check: At the beginning of March 2016, the team was able to review January and February 2016 times from the patient being pre-medicated to receiving his or her chemotherapy. Data was unstable in February because the cancer center medical director was on vacation. Patients that were typically scheduled Monday through Friday were being scheduled Monday through Wednesday instead. This caused orders to be batched. Since there was only one pharmacy technician and only one hood, this limited how fast chemotherapy could be mixed.

Act: The care team reviewed the last two months (January and February) mean time from the patient being pre-medicated to receiving chemotherapy treatment. The team began a process to increase awareness about the goal of chemotherapy administration needing to be within a 30 minute window from the time the patient received his or her pre-medication. This information was communicated in huddles and unit meetings.

Barriers Identified:

- Scheduling difficulties with patients being scheduled for their treatments in a three-day timeframe - Monday through Wednesday.
- More treatments in a shorter amount of time.
- More work for the pharmacy technician.
- Only one pharmacy technician and only one hood for the chemotherapy treatments.
- High demand with a low resource volume.
- Staff unaware of the average mean time from patient being pre-medicated to receiving chemotherapy treatment.
- Necessity to work with the pharmacy department to find a better way to service our patients in a timely manner and not cause an increase of labor for the pharmacy staff.

Percentage of Patients Receiving Chemo 30 Minutes After Pre-Meds



PDCA Cycle 2

Plan: To increase the percentage of chemotherapy patients receiving chemotherapy within 30 minutes of receiving pre-medication. Baylor Scott & White – Waxahachie Cancer Center plans to achieve this goal by stocking chemotherapy patient premedications within the cancer center's medication Omnicell.

Do: On March 29, 2016, the Cancer Quality Subcommittee agreed to stocking chemotherapy pre-medications within the cancer center's Omnicell. Having the medications in this location allowed the staff to easily obtain the medications. Not only did this allow staff to give the medications within a timely manner, it eliminated the need to call pharmacy to send the medications, freeing up the pharmacy technician to focus on preparing the chemotherapy treatments.

Check: The Cancer Quality Subcommittee continued to monitor the average time from patient being pre-medicated to receiving his or her chemotherapy treatment over the next six months. Even with increasing patient volume, the cancer center saw improvement in average times from patient being pre-medicated to receiving his/her chemotherapy. From March 2016 until September 2016, the team was able to achieve its goal of 95 percent of chemotherapy patients receiving chemotherapy within 30 minutes of being pre-medicated. Not only did the team achieve its goal, most months the goal was surpassed. In August 2016, the team achieved an all-time high of 99.6 percent of chemotherapy patients receiving their chemotherapy within 30 minutes of being pre-medicated.

Act: Determine where opportunities for improvement are present.

Barriers Identified:

- Lack of understanding on the clinical care team's staff of the importance of achieving this goal.
- Staffing issues – with such a high volume of chemotherapy patients, does staff have all the help it needs?

The cancer center care team continued to bring awareness to this topic and made it a standing agenda item during Cancer Quality Subcommittee meetings. By keeping a spotlight on this initiative, this goal stayed at the forefront of the care team's work.

Education for staff and patients was given. Staff was educated about the importance of this goal and what it meant for not only our patients but our staff as well. With the staff being able to successfully pre-medicate the patient in a timely manner prior to chemotherapy, the patient had a decreased chance of suffering side effects. Nausea and vomiting are main side effect of chemotherapy. If the patient had little to no nausea, the nurse would not need to give the patient additional medication. This gave the nurse more time to accurately assess the patient's nausea/discomfort, prepare the medication, administer the medication and chart. Patients were educated on the importance of this goal as well, allowing the patients to play an active role in their health care management.

Outcomes and Takeaways

After education was completed with staff and patients and daily rounding on patients was done to assess their chemotherapy side effects, the cancer center saw an improvement in mean time averages of pre-medication to chemotherapy. Not only were patients happier about the reduced possibility of side effects from their treatment, the staff was happy that the necessity of re-medicating patients continuously during and after treatment was significantly reduced. During the last meeting in October 2016, it was noted that in the entire month of September, only one patient case was delayed in time from pre-medication to treatment.

Next Steps and Lessons Learned

This project used an interdisciplinary focus, but the core of this team was led by nursing. The nurses realized that involving pharmacy early on in the process helped to create a collaborative approach in ensuring pre-med and chemo were administered timely.

We recognized communication between nursing and pharmacy is vital to ensure we are all working toward the same goal.

References

1. MAYO CLINIC http://www.mayoclinic.org/tests-procedures/chemotherapy/basics/definition/prc-20023578.
2. CANCER.NET http://www.cancer.net/navigating-cancer-care/how-cancer-treated/chemotherapy/what-expect-when-having-chemotherapy.
3. BSWHEALTH http://www.bswhealth.com/About/Pages/Default.aspx.

Cancer Screenings

Baylor Scott & White Medical Center – Waxahachie 2016

SCREENING TYPE	NUMBER OF 2016 SCREENINGS	ABNORMAL RESULTS	CANCER DIAGNOSIS
Breast	4,367	440	20
Colon	1,893	26	4
Skin	118	5	3
Low-Dose CT Lung	51	5	1

Cancer Registry

	NCDB Target	CoC State of Texas Performance Rate	CoC Census Region (West) Performance Rate	All CoC Programs Performance Rate	Baylor Scott & White – Waxahachie Performance Rate		
Breast Cancer	2015 Forward	Diagnosis Year 2014 (CoC)			2013*	2014*	2015**
BCS: Breast conservation surgery rate for women with AJCC clinical stage 0, I, or II breast cancer	NA	54.0%	57.0%	64.0%	47.0%	62.0%	56.0%
NbX: Image or palpation-guided needle biopsy (core or FNA) is performed for the treatment of breast cancer (Quality Improvement Measure - Released Spring 2014)	80.0%	88.8%	87.5%	87.3%	91.0%	93.0%	89.0%
HT: Adjuvant hormonal therapy: Tamoxifen or third generation aromatase inhibitor is considered or administered within 1 year (365 days) of diagnosis for women with AJCC T1cNoMo, or Stage II or III hormone receptor positive breast cancer (Accountability Measure - Released Fall 2008)	90.0%	90.5%	90.4%	93.2%	91.0%	100.0%	100.0%
MASTRT: Radiation therapy is considered or administered following any mastectomy within 1 year (365 days) of diagnosis for women with >= 4 positive lymph nodes (Accountability Measure)	90.0%	82.0%	83.3%	87.8%	100.0%	100.0%	100.0%
BCRST: Post breast conserving surgery irradiation: Radiation therapy is administered within 1 year (365 days) of diagnosis for women under age 70 and receiving breast conserving surgery for breast cancer (Accountability Measure - Released Fall 2008)	90.0%	86.8%	88.6%	91.8%	90.0%	90.0%	90.0%
MAC: Adjuvant chemotherapy: Combination chemotherapy is considered or administered within 4 months (120 days) of diagnosis for women under 70 with AJCC T1cNoMo, or Stage II or III hormone receptor negative breast cancer (Accountability Measure - Released Fall 2008)	NA	92.9%	92.1%	93.5%	100.0%	100.0%	100.0%
Colorectal Cancer							
ACT: Adjuvant chemotherapy: Adjuvant chemotherapy is considered or administered within 4 months (120 days) of diagnosis to patients under age 80 with AJCC III (lymph node positive) colon cancer (Accountability Measure - Released Fall 2008)	NA	90.0%	97.7%	93.0%	100.0%	100.0%	86.0%
12 RLN: Surgical resection includes at least 12 lymph nodes: At least 12 regional lymph nodes are removed and pathologically examined for resected colon cancer (Quality Improvement - Released Fall 2008)	85.0%	90.5%	89.1%	87.8%	80.0%	94.0%	100.0%
Rectal Cancer							
RECRCT: Pre-operative chemo and radiation are administered for clinical AJCC T3N0, T4N0, or Stage III; or Postoperative chemo and radiation are administered within 180 days of diagnosis for clinical AJCC T1-2N0 with pathologic AJCC T3N0, T4N0, or Stage III; or treatment is considered; for patients under the age of 80 receiving resection for rectal cancer (Quality Improvement - Released Spring 2015)	85.0%	86.1%	84.9%	84.6%	NA	NA	NA

	NCDB Target	CoC State of Texas Performance Rate	CoC Census Region (West) Performance Rate	All CoC Programs Performance Rate	Baylor Scott & White – Waxahachie Performance Rate		
Gastric	2015 Forward	Diagnosis Year 2014 (CoC)			2013*	2014*	2015**
G15RLN: At least 15 regional lymph nodes are removed and pathologically examined for resected gastric cancer (Quality Improvement - Released Fall 2014)	80.0%	87.3%	88.9%	89.4%	NA	100.0%	NA
Non-Small Cell Lung							
10RLN: At least 10 regional lymph nodes are removed and pathologically examined for AJCC Stage 1A, 1B, IIA, and IIB resected NSCLC (Surveillance Measure - Released Fall 2014)	NA	39.4%	37.1%	38.9%	NA	NA	NA
LNoSurg: Surgery is not first course of treatment for cN2, M0 cases (Quality Improvement)	85.0%	90.2%	91.2%	90.6%	NA	NA	NA
LCT: Systemic chemotherapy is considered or administered within 4 months to the day pre-operatively or day of surgery to 6 months postoperatively or surgically resected cases with pathologic lymph node positive (pN1) and (pN2) NSCLC (Quality Improvement - Released Fall 2014)	85.0%	80.5%	84.7%	87.8%	NA	NA	NA
Cervix							
CBRRT: Use of brachytherapy in patients treated with primary radiation with curative intent in any stage of cervical cancer (Surveillance Measure - Released Spring 2015)	NA	74.2%	69.8%	72.1%	NA	NA	NA
CERRT: Radiation therapy completed within 60 days of initiation of radiation among women diagnosed with any stage of cervical cancer (Surveillance Measure - Released Spring 2015)	NA	79.6%	78.6%	77.9%	NA	NA	NA
CERCT: Chemotherapy administered to cervical cancer patients who received radiation for Stages IB2-IV cancer (Group 1) or with positive pelvic nodes, positive surgical margin, and/or positive parametrium (Group 2) (Surveillance Measure - Released Spring 2015)	NA	88.7%	86.7%	86.6%	NA	NA	100.0%
Endometrium							
ENDLRC: Endoscopic, laparoscopic, or robotic performed for all endometrial cancer (excluding sarcoma and lymphoma), for all stages except Stage IV (Surveillance Measure- Released Fall 2015)	NA	54.9%	54.6%	60.6%	NA	NA	NA
ENDCTRT: Chemotherapy and/or radiation administered to patients with Stage IIIC or IV endometrial cancer (Surveillance Measure - Released Fall 2015)	NA	74.8%	72.6%	77.8%	NA	NA	NA
Ovary							
OVSAL: Salpingo-oophorectomy with omentectmy, debulking/cytoreductive surgery, or pelvic exteneration in Stages I-IIIC ovarian cancer (Surveillance Measure - Released Fall 2015)	NA	63.9%	64.0%	71.2%	NA	0.0%	NA
Bladder							
BL2RLN: At least 2 lymph nodes are removed in patients under 80 undergoing partial or radical cystectomy (Surveillance Measure - Released Spring 2016)	NA	87.3%	88.9%	89.4%	NA	NA	NA

*Source: Data is pending results by the Rapid Quality Reporting Process via the National Cancer Data Base.

**The facility did not have data to measure these metrics.