



2018

28-30 JUNE
VIENNA, AUSTRIA

SUPPORTIVE CARE
MAKES EXCELLENT
CANCER CARE POSSIBLE



MASCC/ISCO

ANNUAL MEETING ON SUPPORTIVE CARE IN CANCER



EDUCATION FOR A BETTER CHEMOTHERAPY EXPERIENCE

Ellen Manzullo, MD, FACP

Professor of Medicine

Clinical Deputy Division Head, Internal Medicine
UT MD Anderson Cancer Center

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Faculty Disclosure

	No, nothing to disclose
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Session Outline

1. Aspects of Education prior to the initiation of Chemotherapy
2. Thrombosis and education on it's prevention and treatment
3. Potential side effects of Chemotherapy
 - Questions and Answers
4. Psychosocial aspects of treatment with Chemotherapy
5. Healthy Lifestyle Promotion
 - Questions and Answers





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Challenges of Patient Education Prior to Chemotherapy

- Patients often are overwhelmed with facing a potential life threatening illness
- Many times cancer patients undergo extensive treatment over a prolonged time course
- The shift in chemotherapy treatment from the inpatient to outpatient setting has decreased the amount of time for patient education
- Outpatient chemotherapy has made it important for both patients as well as their caregivers to be knowledgeable about side effect treatment in the home





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Challenges of Patient Education Prior to Chemotherapy

- More than 60% of all cancer patients are 65 years of age and above
- Many times cancer patients also have a multitude of other comorbid conditions
- A study has shown that older patients only actively recall less than one fourth of the education focused on side effect treatment preceding chemotherapy

Jansen J, van WJ, van der Meulen N, van Dulmen S, Heeren T, Bensing J. (2008).
Recall in older cancer patients: measuring memory for medical
information. *Gerontologist*, 48(2); 149-157





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PatientVOICE: An Online Communication Tool for Older Patients with Cancer

- Online, preparatory tool with audio focused on improving the participation of older patients (65 years or older) during educational nursing encounters before chemotherapy and also improving their information recall
- PatientVOICE was developed with involvement of both patients and nurses
- PatientVOICE provides pre-visit information about chemotherapy, the nursing visit, and the role of the patient during treatment
- Future research is going to be conducted on it's utility and usability in a group of older patients who receive or have received chemotherapy

van Dulmen S, Driesenaar J, van Weert J, van Osch M, Noordman J. (2017).
PatientVOICE: Development of a Preparatory, Pre-Chemotherapy Online
Communication Tool for Older Patients With Cancer.
JMIR Research Protocols, 6(5), 1-11





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Evaluation of the Addition of Video-based Education for Patients Receiving Standard Pre-Chemotherapy Education

- Aim of the study was to evaluate the usefulness of an educational video with regard to patients' ability to recall and report side effects of treatment
- Patients were those with newly diagnosed breast or colorectal cancer, between ages 18 - 75, who were to receive adjuvant chemotherapy
- Patients were randomized to receive standard pre-chemotherapy education or standard education plus addition of a video
- The video, "Staying Well During Chemotherapy", focused on most common side effects of treatment with education on their management

Kinnane, N., & Thompson, L. (2008). Evaluation of the addition of video-based education for patients receiving standard pre-chemotherapy education. *European Journal of Cancer Care*, 17(4), 328-339



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Hypothesis of the Study:

- Patients who watched the video in addition to receiving written and verbal instructions are better able to recall side effects of treatment and would perform early reporting of treatment side effects

Specific Aims of the Study:

- Compare recall of information regarding self-care and side effects in patients who watched the video as part of their pre-chemotherapy education with those who received standard care.
- Survey patients and evaluate the usefulness of the video in assisting them manage side effects of chemotherapy in the home.

Kinnane, N., & Thompson, L. (2008). Evaluation of the addition of video-based education for patients receiving standard pre-chemotherapy education. *European Journal of Cancer Care*, 17(4), 328-339





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Patient Selection

- Patients with colorectal cancer and were scheduled to receive adjuvant chemotherapy with weekly 5 Fluorouracil and Folinic Acid
- Patients with breast cancer and were receiving 5 Fluorouracil, Epirubicin and Cyclophosphamide or Adriamycin/Epirubicin and Cyclophosphamide Chemotherapy
- Patients had English as their primary language
- ECOG score 0-2

Kinnane, N., & Thompson, L. (2008). Evaluation of the addition of video-based education for patients receiving standard pre-chemotherapy education. *European Journal of Cancer Care*, 17(4), 328-339





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Exclusion Criteria

- If they or any immediate family member had prior chemotherapy
- Comorbid condition that would prohibit comprehension and giving informed consent
- Visually or hearing impaired
- Unable to complete the questionnaire

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Withdrawal Criteria

- Patients were withdrawn if they had toxicities that required stopping treatment
- If treatment had to be deferred due to serious illness lasting more than 3 weeks

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"Staying Well During Chemotherapy" included the following:

- Self help for multiple symptoms
 - Nausea/vomiting
 - Infection
 - Anemia
 - Thrombocytopenia
 - Mouth care
 - Dietary & fluid intake
 - Diarrhea
 - Constipation
- Patients were also instructed when to seek medical care

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"Staying Well During Chemotherapy" included the following:

- Patients completed a baseline questionnaire evaluating knowledge and another questionnaire prior to the second chemotherapy cycle evaluating recall of information
- Patients who watched the video were asked to assess the video after 6 cycles of chemotherapy
- Telephone calls to the department reporting symptoms were evaluated for both groups

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Results

- The video group showed a trend towards higher recall in information pertaining to:
 - Fever
 - Mouth problems
 - Anemia
 - Prevention of constipation
- The video group more commonly telephoned reporting medical problems of:
 - Nausea
 - Vomiting
 - Signs of infection compare with the standard group





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Internet Resources for Patients on Chemotherapy: Side Effects

- **ASCO:** <https://www.cancer.net/navigating-cancer-care/side-effects>
- **NCI:** <https://www.cancer.gov/about-cancer/treatment/side-effects>
- **ACS:**
<https://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html>



Patient-oriented APPS

iOS (iPhone/iPad):



CaringBridge

Help Connect caregivers & Patients with support system.

Link: <https://itunes.apple.com/us/app/caringbridge/id365726944?mt=8>



Cancer.net

Guides to 120 cancers, interactive tool to keep track of questions to ask providers and record voice answers, symptom tracker for side effects.

Link: <https://itunes.apple.com/us/app/cancer-net-mobile/id433501257?mt=8>



NCCN Guidelines for Patients

Virtual Patient version of NCCN Guidelines. Have to become user (free).

Link: <https://itunes.apple.com/us/app/nccn-patient-guides-for-cancer/id1168594706?mt=8>



Cancer Survivorship Connection

By Georgia Core

Links to Survivors Videos, Blogs, Apps and Cancer hospitals in Georgia

Link: <https://itunes.apple.com/us/app/cancer-survivorship-connection/id1189987382?mt=8>



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Patient-oriented APPS

ANDROID:



Symptom Management Guidelines

By Cancer Care Ontario

Simplified guides (includes Fatigue)

Link: <https://play.google.com/store/apps/details?id=com.cancercare.symptommanagement>



Cancer.net

Guides to 120 cancers, interactive tool to keep track of questions to ask providers and record voice answers, symptom tracker for side effects.

Link: <https://play.google.com/store/apps/details?id=com.fueled.cancernet>



NCCN Guidelines for Patients

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Link: <https://play.google.com/store/apps/details?id=com.mediaparts.nccn>



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Thrombosis and Cancer



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- Risk of venous thromboembolism (DVT or PE) is increased in patients receiving cancer chemotherapy.
- In the general population, VTE occurs at a rate of 1 per 1000 persons/year or 0.1% (2/3 DVT, 1/3 PE) and patients with cancer have an incidence of reported thrombotic events that ranges from 4% to 20%
- VTE is present at autopsy in approximately 50% of patients with cancer
- Cancer patients have a recurrence rate of thrombotic events 3 times that of general population
- Risk of venous thromboembolism also rises progressively over the course of treatment
- Retrospective studies have suggested an association between cancer-associated venous thromboembolism and patient survival

Kuderer N, Culakova E, Lyman G, Francis C, Falanga A, Khorana A.(2016).
A Validated Risk Score for Venous Thromboembolism Is Predictive of
Cancer Progression and Mortality. *The Oncologist*, 21; 861-867



Thrombosis and Cancer

- Venous thromboembolism is the second leading cause of death following cancer progression
- May result in delay or discontinuation of chemotherapy
- Thrombosis in cancer patients has an increased risk of recurrent events as well as major bleeding in comparison to thrombosis in non-cancer patients



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Clinical Risk Score



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Factor	Risk Score
Site of cancer	
Very high risk (stomach, pancreas)	2
High risk (lung, lymphoma, gynecologic, bladder, testicular)	1
Prechemotherapy platelet count $\geq 350,000/\text{mm}^3$	1
Prechemotherapy leukocyte count $> 11,000/\text{mm}^3$	1
Hemoglobin level < 10 g/dL or use of red cell growth factors	1
Cumulative score: high risk, ≥ 3 ; intermediate risk, 1-2; low risk, 0. Body mass Index ≥ 35 kg/m ²	1

Kuderer N, Culakova E, Lyman G, Francis C, Falanga A, Khorana A. (2016).
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Cancer Progression and Mortality. *The Oncologist*, 21; 861-867



Thrombosis and Cancer

- A large, nationwide, prospective cohort study of adults with solid tumors or lymphoma initiating chemotherapy from 2002 to 2006 at 115 US practice sites was performed.
- Purpose of the study was to investigate if the VTE Clinical Risk Score also predicted early mortality and cancer progression
- During the first 4 months of therapy of 4,405 patients, 134 (30%) died and 330 (7.5%) experienced disease progression



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Results

- High Risk Patients (n=540, 12.3%) by the Clinical Risk Score had a 120 day mortality rate of 12.7%
- Intermediate Risk Patients (n=2,665, 60.5%) had a mortality rate of 5.9%
- Low Risk Patients (n=1,200, 27.2%) had a mortality rate of 1.4%

120 day Follow-up Results:

Cancer progression occurred in 27.2% of high risk patients, 16.4% of intermediate risk patients, and 8.5% of low risk patients.

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A Validated Risk Score for Venous Thromboembolism Is Predictive of
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Conclusion

- VTE Clinical Risk Score was also predictive of early mortality and cancer progression during the first four cycles of outpatient chemotherapy. This was also independent of other major prognostic factors including VTE.



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A Validated Risk Score for Venous Thromboembolism Is Predictive of
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Patient Education on Thrombosis

- American College of Physicians Patient Education Booklet on: What You Should Know About Blood Clots

“ A DVT is a blood clot that forms in the deep veins of your body, usually in the leg or arm. If the clot breaks free and moves to the lungs, it can block blood supply and make it hard for oxygen to get to the rest of your body. This is called a PE.”





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Patient Education on Thrombosis

- Risk Factors You Cannot Change
 - Having a family history of blood clots (blood relative who has had blood clots in the past or a blood clotting disorder)
 - Being over 60 years of age
 - A personal history of blood clots
- Risk Factors You Can Work to Change
 - Smoking
 - Being overweight or having obesity
- Multiple Risk Factors that You May Have During Your Lifetime
 - Cancer diagnosis





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Patient Education on Thrombosis

- Symptoms of DVT and PE
- Actions to take if having symptoms of a DVT or PE
- Ways to prevent blood clots from forming
 - Importance of regular exercise
 - Smoking cessation
 - Compression stockings (How to apply and take off)









Warfin and Other Blood Thinners



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	Warfarin (Coumadin®)	Other Blood Thinners Apixaban (Eliquis®), Dabigatran (Pradaxa®), Edoxaban (Savaysa®), Rivaroxaban (Xarelto®)
Food Interactions 	Vitamin K—found in leafy green vegetables. Important to eat the same amount and type each week.	No known interactions with food.
Drug Interactions 	Over-the counter: Herbal and dietary supplements (ginger, ginseng and garlic); anti-inflammatory (ibuprofen and naproxen; cold medicines). Prescription: Antineoplastic (cancer), heart, antifungal, steroids, antibiotics, and antidepressant medicines.	Talk to your health care professional about possible interactions with current medicines. Other blood thinners can have severe side effects if not monitored correctly.
Blood Tests 	Requires regular blood tests called INRs to make sure you are on the right dose and that your blood is not too thick or thin.	Occasional blood tests to make sure your blood, liver, and kidneys are working normally.
Costs 	Lower cost (depending on your insurance benefits).	Higher cost (depending on your insurance benefits).
Possible Side Effects 	Bleeding and bruising (talk to your health care professional about your risk for bleeding).	Bleeding and bruising (talk to your health care professional about your risk for bleeding). Possible stomach discomfort.
Storage 	Can be stored in a pill organizer.	Dabigatran needs to be kept in its bottle. All others can be stored in a pill organizer.



Prescription Medications



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Name of Medicine	Dosage	Size, Shape & Color	How Much	When to Take/ How to Use	What I Use It For	Start/Stop Date	Notes
Example: Warfarin	5mg	small, oval, peach color	1 pill	Take by mouth, every morning	Blood Thinner	4/1/13-	Don't skip doses, be consistent with green veggies



Conclusion

- A cancer diagnosis is a teachable moment
- Patient education prior to chemotherapy is essential and should focus on prevention and treatment of side effects as well as instruction on when to seek medical care
- Patients should be educated on the possibility of venous thromboembolism (DVT or PE) and ways to possibly prevent this from occurring and that it is a medical emergency
- Education helps patients and their caregivers be better advocates for their well being



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