

SAFE HANDLING OF HAZARDOUS DRUGS

CHRISTOPHER FRIESE PHD, RN, AOCN, FAAN SUMMARIZED BY AGNES PILECKI BSN. RN

Nurses on oncology units are at increased risk for contact with hazardous drugs (HDs) and are ultimately more likely to experience adverse health outcomes related to this occupational exposure. Safe practice is one of the leading priorities for nursing professionals; therefore, reviewing information on newest polices and proper handling of hazardous substances is beneficial. Attendees of the 2018 Spring Mini Conference had an opportunity to review safe handling practices of HDs during the presentation by Christopher Friese PhD, RN, AOCN, FAAN. The guest speaker defined characteristics of hazardous substances and potential ways of exposure, elaborated on occupational health risks, and discussed practices to reduce risks for contamination.

According to the National Institute for Occupational Safety and Health (NIOSH), HDs possess one of the following criteria: carcinogenic, teratogenic, genotoxic, cause organ toxicity at a low level, cause reproductive toxicity. Alternatively, even if a drug does not possess these characteristics, it can still be classified as an HD if it has a similar molecular structure to other HDs (NIOSH, 2014). Knowing that a drug is hazardous, nurses need to be vigilant and recognize potential routes of exposure such as injection, inhalation, ingestion, and dermal contamination during its preparation, administration, and disposal. Friese raised awareness about proper handling of contaminated equipment (e.g. IV tubing) and excreta, as well as potential for cross contamination in an event of improper HD handling. Therefore, following policies and procedures, obtaining adequate training, and follow-up

education are necessary to assure environmental and personal safety when handling HDs. Incidental exposure can lead to cancer (e.g. bladder and liver cancer, leukemia, lymphoma), and allergies. It can also affect the neurologic, reproductive and respiratory systems (Polovich, 2011). Since there are still limited data, further research is needed to present credible long-term health risks related to HDs exposure.

Friese stated that awareness of potential problems needs to be addressed on the leadership level which must be transparent in developing policies and procedures to guide work practices such as adequate labels for HDs, utilizing closed system transfer devices (CSTDs), and proper use of personal protective equipment (PPE). Further, it is imperative to implement structured hierarchy for exposure control. According to the U.S. Department of Labor, the most effective ways to contain the hazard are through elimination or substitution of hazards and engineering control followed by administrative control. The use of PPE is the least effective, nonetheless an important in the hierarchy. Although the least effective, but highly important is the proper use of PPE tested against

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an array of HDs. Donning two pairs of gloves, wearing disposable single use gown, eye shields and respirators as needed provide the basic protection while working with HDs. Individuals who handle these drugs need to be vigilant and not touch other objects while wearing contaminated PPE. Proper removal and disposal of used PPE needs to become a part of daily routine. Friese encouraged washing hands with soap and water after de-gloving. Alcohol-based hand sanitizer may bind to chemotherapy agents on the skin, consequently causing prolong penetration via the epithelium. NIOSH provides a recommendation for the use of PPE depending on the form and the route of drug administration (NIOSH, 2014). The speaker noted that double gloves need to be used at all times regardless of drug and route of administration. Gown use is not required only for the administration of oral tablets or capsules.



Friese presented the results from the survey about the use of PPE and CSTDs. The questionnaire was delivered to nurses in Georgia, California, and Michigan who were ONS members in 2014. Shockingly, only 23% of respondents claimed to use double gloves and only half of them used disposable gowns when administering chemotherapy. In 43% of cases CSTD was utilized. Not only is this a violation of the policies and work practices, but it is also an indication of a low concern for spills among those surveyed. The existence of barriers for optimal PPE use such as lack of training and PPE availability were noted during this study. Friese stated that additional research is needed to improve work practices for



HDs handling and to assess the severity of the potential occupational exposure.

Minimizing adverse effects of exposure to chemotherapy requires education on handling HD spills. Spill kits use and proper handling of contaminated materials are necessary to protect the environment and prevent cross contamination (ASHP, 2006). Additional assistance may be needed to assess severity of spill and the need for decontamination, isolation, or evacuation. Affected employees must contact the occupational health department and file the spill incident report. Post exposure medical surveillance is needed to assess for adverse health effects (Polovich, 2011). Friese encouraged the audience to follow policy updates and guidelines in regard to handling HDs. Information is available on various websites including the Centers for Disease Control and Prevention (CDC), Oncology Nursing Society (ONS), or Occupational Safety and Health Administration OSHA. The compliance of healthcare facilities is overlooked and audited by regulatory bodies and new standards USP800 of handling hazardous drugs in healthcare will be enforceable by the end of 2018. Nurses are responsible for compliance with these regulation to protect the patient, coworkers, themselves, and the environment from unwanted spills and contaminations from HD and the health risks related to the exposure.

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National Institute for Occupational Safety and Health. (2014). NIOSH list of antineoplastic and other hazardous drugs in healthcare settings 2014. Publication Number 2014-138. Cincinnati, OH: DHHS (NIOSH).

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LETTER FROM THE EDITOR

LETTER FROM THE EDITOR

DENISE WEISS PhD, FNP, BC

As we celebrate oncology nursing month, I wanted to take time for reflection and acknowledgement of all the good you and your colleagues do. I happened to come across a few articles to ponder. One article is from Ginex et al. (2018) who studied the impact of pet therapy, more specifically animal facilitated therapy (AFT), on surgical oncology patients and staff. For the patients, the authors wanted to know if a difference in anxiety and depression occurred after AFT. For the surgical oncology staff, did AFT have an impact on work satisfaction. The patients in the experimental arm of the study received AFT four days a week. The staff in the research group had repeated exposure to the dogs during routine workdays either directly (spending time with the dog) or indirectly (see the dogs visit with patients). The quantitative findings from the pre-test post-test did not demonstrate statistical significance, yet the qualitative data revealed positive responses from patients and staff.

The researchers identified three themes from the staff.

- · A sense of calm and comfort; "Seeing dogs on the unit has put a smile on everyone's face no matter the day".
- · A sense of happiness and hopefulness; "The dogs made a stressful day better".
- · A good distraction; "Something to look forward to". Another interesting article related to oncology stress reduction is that by Schleisman et al. (2018). The authors

looked at creative play for pediatric and adult oncology patients as a means to reduce stress. Examples of creative play for the adult population include board and card games, pet therapy, music and art therapy. If a patient happens to miss a lifetime event i.e. graduation ceremony, a celebration with the nursing staff to help reduce the sense of loss was recommended.

Aycock and Boyle (2009) suggest retreats for nurses as a getaway form the psychological burden from caregiving and to promote emotional renewal. A retreat may not be an option for most of us although participating in oncology nursing comradery is closer than you think. The annual Oncology Nursing Society Congress takes place this month and for those that have attended will attest, you leave with a sense of renewal and recharge like spring is to winter. Please be sure to read Highlighting a Member as one of the 2018 Congress scholarship recipients is introduced.

References:

Aycock, N., Boyle, D. (2009) Interventions to manage compassion fatigue in oncology nursing CJON 13 (2) 183-191.

Ginex, P., Montefusco, M., Zecco, G., Trocchia Mattessich, N., Burns, J., Hedal-Siegel, J., Kopelman, J. See Tan K. (2018). Animal facilitated therapy program: Outcomes from Caring Canines, a program for patients and staff on an inpatient surgical oncology unit. CJON 22 (2) 193-198.

Schleisman, A., Mahon, E. (2018), Creative play; Nursing intervention for children and adults with cancer, CJON 22 (2)



INTRODUCING LINSDAY CLEVELAND

DENISE WEISS PhD, FNP, BC

Meet Linsday Cleveland, known to friends as Lynn, a registered nurse on the bone marrow transplant unit at Karmanos Cancer Center. Lynn has been with the transplant team for the past 10 years. She started her education trajectory with a bachelor of science in public health and health promotion from Central Michigan University in the late 1990's. Her passion laid in working with people, utilizing science while promoting health care to the public. Lynn soon realized a better fit with these goals would be in the field of nursing. Without delay, a bachelor of science in nursing was obtained through the second degree program at Wayne State University. It was during a nursing management course that Lynn was introduced to the bone marrow transplant program. She described a tug, or sense of belonging, to the unit and applied for a staff nurse position. Without making it to her car after the interview, she was called and offered employment. Seems like she was not the only one to notice her fit with the team. With a strong commitment to education, Lynn picked up the books once again and obtained her master degree in nursing with a family nurse practitioner specialty. Her goal is to work as an advanced practice nurse in oncology.









When not studying, you can find Lynn with her husband and 8 year old pit bull B, hiking and camping along the shores of Lake Superior. If you are really fast, you can spot Lynn running the Detroit Free Press international half marathon. Yes, she does like to relax and painting will bring on a sense of tranquility. At the age of eleven, Lynn lost her mother-a difficult challenge at any age. As an adult she was introduced to the works of Hope Edelman, American non-fiction author of Motherless Daughters. This book is as meaningful for Lynn today as it was with the first reading. On a sunny note, Lynn recalls her all-time favorite movie 'The Goonies' with light hearted fondness.

Lynn won a scholarship to attend the 2018 ONS Congress in Washington D.C. Congratulations Lynn! So, if you are fortunate to attend this year's Congress, look for Lynn and pass on a big hello.

CONGRATULATIONS!!

RENEE WILLIAMSON, LISA SEAFORD, FATIMA BOOMGARRD, RUTH DIEN, SHERYL SMOLAREK, WENDY EVLOA, ELIZABETH KNOLL, DEBBIE YORK, LINDA VANNI, JEANNE PARZUCHOWSKI

CONGRATULATIONS TO THE MDONS MEMBERS THAT WON GIFT BASKETS AT THE ANNUAL UPDATES IN ONCOLOGY CONFERENCE.

LETTER FROM THE PRESIDENT

FROM THE PRESIDENT

MELISSA JAMES BSN, RN, BMTCN

Hello everyone, hope 2018 is treating you well so far. May is a time for celebration for the field of nursing, as it is Nurse's Week (May 6th – May 12th, 2018) and Oncology Nursing Month. There are over 4 million registered nurses in the United States, which means one in every 100 people is a registered nurse (ANA, 2018).

So what is nursing? What does nursing mean to you? If you look up nursing in the dictionary, you will find that nursing means to "hold closely and carefully, to take special care of, development or well-being, and to harbor a belief or feeling".

As we move into Oncology Nursing Month, I celebrate you, the registered oncology nurse. As you stand by your patient explaining diagnosis, guiding them through treatment, celebrating victories, comforting and lending caring touch during trying times, and providing the utmost compassionate and commitment to patients and families during their most intimate moments. Nursing encompasses so many personal and professional rewards. Every day, registered nurses strive to provide the best care as patients move through their healthcare journey.



Being a Nurse Means...

You will never be bored.

You will always be frustrated.

You will be surrounded by challenges, so much to do and so little time.

You will carry immense responsibility and very little authority. You will step into people's lives and you will make a difference. Some will bless you.

Some will curse you.

You will see people at their worst - and at their best. You will never cease to be amazed at people's capacity for love, courage, and endurance.

You will see experience resounding triumphs and

devastating failures.
You will cry a lot.
You will laugh a lot.
You will know what it is to be human, and to be humane.

Poem by Melodie Chenevert.

MDONS members have been hard at work for 2018. The year started with our 28th Annual Updates in Oncology Conference on February 7, 2018. This year's conference included topics on Cancer Genomics, Caregiver Fatigue, Immune Checkpoint Inhibitors, Multiple Myeloma, Pain Management, and Proton Therapy education.

In March, MDONS hosted our Spring Mini Conference at Karmanos Cancer Institute. Chris Friese PhD, RN, AOCN, FAAN did a fantastic presentation on safe handling of hazardous drugs and Brenda Nordstrom MSN, RN-BC, CHPN gave a very enlightening lecture on human trafficking. Thanks to both presenters for such a wonderful day of learning.

This year we had three recipients of the MDONS Congress Scholarship. This scholarship provides means for the recipient to attend ONS Annual Congress, which will be in Washington DC this year.

The first recipient is Lynn Cleveland. Lynn has been an oncology nurse for 10 years at Karmanos Cancer Institute, working with autologous and allogeneic BMT patients. She has been an MDONS member for 7 years and is part of the MDONS Programs Committee. Lynn also recently graduated from Oakland University with her FNP, and successfully passed her boards! Lynn states that ONS has encourage her to research with a team of colleagues and submit poster presentations for national conferences. ONS has also assisted her to specialize in the oncology field by offering the BMTCN certification.

Our second recipient is Eva Vera Cruz. Eva has been an oncology nurse and a member of ONS since 2004. Eva is an active member of MDONS, attending meetings and activities throughout the year. Eva applied for the scholarship because she has never attended ONS Congress. She has heard such good feedback from nurses that have attended in the past, and what others have learned from Congress has made improvements to their patient care.

Our third recipient of the Congress Scholarship is Michelle Manders. Michelle has been a radiation oncology nurse for 14 years. She has been a member of MDONS since 2010. Michelle currently holds the Secretary position for our MDONS board and has written articles for the Chapter Newsletter and also presented at our Mini

MULTIPLE MYELOMA: DIAGNOSIS, PROGNOSIS, AND TREATMENT

FROM THE PRESIDENT

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Conferences. Michelle states going to ONS Congress will provide her with the opportunity to gain knowledge through presentations, exhibits, and interactions with other oncology nurses.

Congratulations to all of our ONS Congress Scholarship recipients. We look forward to hearing about your experiences in Washington DC.

Please continue to check our website for upcoming events and activities as well as the latest scholarships and awards that we offer to members. See you at our next event!

MULTIPLE MYELOMA: DIAGNOSIS, PROGNOSIS, AND TREATMENT

JEFFREY A. ZONDER, MD (PROFESSOR OF ONCOLOGY KARMANOS CANCER INSTITUTE)
SUMMARIZED BY THERESA BENACOUISTO RN, BSN, OCN

Starting at the beginning, multiple myeloma arises from MGUS. Monoclonal gammopathy of undetermined significance (MGUS) is a condition in which an abnormal protein, known as monoclonal protein or M protein, is in the blood. The incidence of MGUS is greater in males than females with percentages according to age of 3.2 % > 50 yo, 5.3% > 70 yo and 7.5 % > 85 yo. The average age of diagnosis is 70 years old. Also, the incidence varies according to ethnicity being higher in Africans and African Americans than other races. A family history also increases the risk of development.

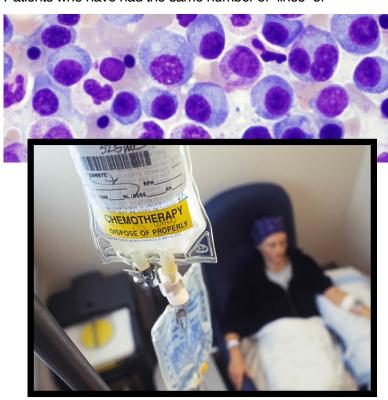
MGUS and smoldering multiple myeloma (SMM), plasma cell dyscrasias that are asymptomatic by definition. Standard of care is observation with treatment being on clinical trials only. MGUS can progress to other conditions, particularly IgM type NHL. SMM is a slow-growing type of multiple myeloma with increased plasma cells in the bone marrow and the presence of monoclonal proteins, without the presence of symptoms. The risk of progression to MM can be quantified.

Multiple myeloma (MM) causes an excess of abnormal plasma (myeloma) cells that accumulate in multiple locations throughout the bone marrow, with healthy cells being crowded out. Conditions include infection, low blood counts, hypercalcemia, kidney problems, bone lytic lesions and possible spinal cord compression.

How we stratify the risk of newly diagnosed myeloma? This is through age and performance status; International Staging System (ISS); genetic abnormalities through metaphase cytogenetics and FISH; and gene expression profiling.

Combination induction regimens were reviewed in the up-front treatment of multiple myeloma. These included VAD; TD; RD; PAD; VTD; CBD; RVD; and CVRD. Also, clinical trials of SO777; IFM2009; CALGB 100104; and RV-MM-EMN-441 were reviewed.

In summary, initial myeloma treatment of RVd should be considered "standard." ASCT adds to RVd early on with the long - term benefit TBD. Maintenance therapy improves PFS with still question of improved OS. First line therapy is a pre-defined course of therapy utilizing agents either simultaneously or sequentially. Patients who have had the same number of "lines" of



therapy may of had both different types or amounts of therapy. Current induction regimens have a 90% ORR. Approved regimens include:

- Rev-Car-Dex
- Rev-Elo-Dex
- Rev-Ninlaro-Dex
- Rev-Dara
- Vel-Dara
- Vel-Doxil-Dex
- Vel-Pano-Dex
- Pom-Dara

MULTIPLE MYELOMA: DIAGNOSIS, PROGNOSIS, AND TREATMENT

MULTIPLE MYELOMA: DIAGNOSIS, PROGNOSIS, AND TREATMENT

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Choosing salvage therapy is determined by multiple factors such as:

- Previous therapy
- Comorbid conditions
- Time from previous therapy
- Mode of drug administration
- · Genetic risk profile
- · Potential role of second ASCT
- Is there an appropriate clinical trial?

Typical obstacles to clinical trials can include peripheral neuropathy; kidney dysfunction; low platelets or WBC's; number of prior therapies; competitive enrollment; lacking molecular target; travel distance; and insurance coverage.

The rise of antibodies MoAbs has evolved in the treatment of relapsed multiple myeloma. These include Elotuzumab; Daratumumab; Isatuximab; and Pembrotlizumab. Daratumumab will soon be available in subcutaneous administration.



Minimal Residual Disease (MRD) measuring refers to counting the number of multiple myeloma cells that remain in a patient after a course of therapy is completed. This MRD testing is going to increase in use for the future. It helps to determine how much of the disease remains after treatment with a particular treatment. Also, it can help determine how deep their remission is, and may indicate how long their remission will last and when they might relapse again.



The Multiple Myeloma Research Consortium (MMRC) is the first collaborative research organization to bring together academic and community cancer centers to advance innovative Phase 1 and Phase 2 clinical trials. The MMRC is aggressively investigating many molecularly targeted, immune, and novel agents. Recently molecular profiling will enable researchers to understand what drives response to treatment or disease progression and will also generate new targeted drug development.

Next, the Amyloidosis back round was reviewed. Amyloidosis is a clonal plasma cell disorder characterized by the production of misfolded immunoglobulin light chains, rarely heavy chains. This may occur concurrently with myeloma. Also, it must be distinguished from the non-AL types of amyloidosis (e.g., ATTR, AA types). Primary amyloidosis organ injury can occur with widespread tissue deposition to the heart, kidney, nerves, GI, vascular, lung, and skin. In summary, amyloidosis is a less common clonal plasma cell disease. Symptoms can vary from abnormal protein toxicity. Early diagnosis is the key with heart involvement driving the prognosis. Treatment therapy is "borrowed" from myeloma with the goal being reduction of light chains.

PRESENTED: UPDATES IN ONCOLOGY

WEDNESDAY, FEBRUARY 7, 2018

SAN MARINO CLUB 1685 E. BIG BEAVER RD, TROY MI





OPENING REMARKS BY OUR CHAPTER PRESIDENT, MELISSA JAMES

.





CAREGIVER FATIGUE

CAREGIVER FATIGUE

SUSAN WOZNIAK, MSHS, RN

The MDONS Annual Updates in Oncology meeting was simply stellar as in years past, with presenters sharing information on everything from Emerging Therapies, to Genomics, to Checkpoint Inhibitors before the lunch break, and on to Regulating Pain right after the lunch break. Thinking it couldn't get better, most of the attendees started slipping into that over-relaxed mode. You know the one. Some call it the "carb coma" that you get post-lunch and others just call it fatigue. So, was it just poor timing to be scheduled to present on "Caregiver Fatigue" at that point in the program or was it the perfect opportunity for a wake-up call?

It was perfect for those of us there to hear Denise Weiss, PhD, FNP, BC AOCNP, share the data that she has collected on informal caregivers and stress, with a goal of identifying family caregiver resources to help manage burdens and reduce mental fatigue. To familiarize the audience with the definition and scope of fatigue within the oncology caregiver community, Denise provided a literature review focusing on the mental effort necessary to provide selective attention, both involuntary and voluntary – directed attention. Evidence indicates that the daily demands and distractions experienced by the caretaker impairs the capacity required for sustained application of directed attention to accomplish patient support, social support and caregiver needs.

Denise shared her observations and experiences chronicled while conducting Phase I studies with cancer patients and family caregivers noting that even though

social support is often provided through multiple outlets, it is not always there when and where the caregiver needs it most. It was concluded that resources need to be tailored to the caregiver and the Attention Restoration Theory was discussed as a means of identifying possible interventions. Denise presented her experience with Nature Intervention Research, as a means of restoring capacity for attention.



Study outcomes were reviewed with recommendations for alleviating caregiver fatigue addressed, such as: 1) Caregivers should be encouraged to spend time in nature and/or viewing nature photos, 2) Conserve directed attention by minimizing environmental noise, 3) Decrease time constraints, and 4) Streamline large tasks into smaller objectives and provide structure to daily routine.

The "Caregiver Fatigue" presentation turned into a wake-up call for our MDONS community that sometimes the best intervention is the simplest intervention and alleviating stress and fatigue can be as simple as sharing the beauty of nature at the right time and right place.

KARMANOS CANCER CENTER

SATURDAY, MARCH 24, 2018

TOPICS INCLUDED:
SAFE HANDLING OF HAZARDOUS DRUGS
PRESENTED BY CHRISTOPHER FRIESE PHD, RN, AOCN, FAAN
&

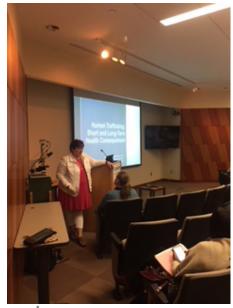
HUMAN TRAFFICKING BY BRENDA NORDSTROM MSN, RN-BC, CHPN





STATS

ATTENDANCE: 45 PEOPLE MEMBERS: 41 NON MEMBERS: 18







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