

Delivering Chemotherapy Planned Dose On Time and Improving Patient Outcomes

As caregivers, it is our goal to deliver 100% of the relative chemotherapy dose so that cancer patients receive the entire dose of each chemotherapy drug within the time period over which it is prescribed – without chemotherapy dose delays or reductions. This was the challenge outlined by Tammy Cogdill, RN BSN OCN in her presentation, *“Delivering Chemotherapy Planned Dose on Time and Improving Patient Outcomes.”* Tammy defined dose intensity – which is the total dose of chemotherapy delivered over the total time to complete chemotherapy. Reducing the planned dose and/or delaying the administration of the planned dose lead to a reduction in dose intensity.

The Gompertz model of tumor cell growth explains the rationale for delivering the planned dose on time. The Gompertz model shows that cells are most responsive to chemotherapy when cell numbers are low and the tumor is clinically undetectable. This is particularly important for chemotherapy-sensitive tumors such as early stage breast cancer and non-Hodgkin’s lymphoma. Adjuvant chemotherapy can prolong survival or cure patients with early stage breast cancer. Studies also suggest that patient outcomes in certain tumor types are detrimentally affected when the planned dose is not delivered on schedule.

Tammy also reminded the audience that recent studies have found that elderly patients often receive suboptimal therapy without clear clinical rationale and that age alone is not a contraindication to deliver the full planned dose on time.

Toxicities are the primary reason why patients do not receive the full planned dose on time and neutropenia is the most common toxicity. The use of colony-stimulating growth factors (CSF) has been shown to improve the delivery of chemotherapy-planned dose on time and decrease neutropenic complications such as fever and hospitalizations. The recent introduction of a long-acting CSF has simplified neutropenia management for both offices and patients. Tammy closed her discussion by reminding the audience that the upcoming holidays are generally when patients travel and may wish to delay receiving treatment. She strongly encouraged the group to be diligent in discussing the impact that dose delays and/or dose reductions may have on their patient’s treatments.



Tammy Cogdill

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“My physician and I have a special one on one relationship with each one of our patients. It is our main goal to give them high quality compassionate care. OA helps us to meet our goals. Cancer is tough to deal with. These meetings help us cope.”

**Marilyn Combs
Promila Suri, MD, Elkton, MD**

