

Oncologic Issues in the Older Adult in Critical Care

Roberta Kaplow, APRN-CCNS, PhD, AOCNS, CCRN

KEYWORDS

• Cancer • Oncology • Older persons • Geriatrics • Oncologic emergencies

KEY POINTS

- As the estimated number of older persons continues to increase, so does the estimated number diagnosed with cancer.
- The process of aging brings several physiologic changes that increase the risk of cancer as well as the comorbidities associated with a cancer diagnosis or its treatment.
- Older individuals are more likely to be admitted to the intensive care unit at some point during their disease trajectory.
- It is imperative for critical care nurses to be aware of the physiologic changes associated with aging, and the reasons for an older person with cancer to be admitted for prevention or treatment of oncologic emergencies.

INTRODUCTION

Even though people of all ages can receive a diagnosis of cancer, cancer is considered a disease of aging.^{1,2} Between the years 2005 and 2009, the median age for a patient with a diagnosis of cancer (all sites) was 66 years. Almost 25% of patients were diagnosed between the ages of 65 and 74; 20.6% were diagnosed between the ages of 75 and 84; and 7.7% of patients were diagnosed at age 85 and older.³ Comparing older adults with their younger counterparts, the incidence of cancer in patients of both genders and all races was 225.8 per 100,000 persons younger than 65 received a diagnosis of cancer while 2119.9 per 100,000 persons were 65 years and older.³ More than 65% of all patients diagnosed with cancer were 65 years and older.^{1,4,5}

With the projected increase in the older population comes an increase in the anticipated number of cancer cases up to 2050 (**Table 1**). Furthermore, the cancer survival rate has increased over the past 3 decades. Specifically, from 1975 to 1977 the cancer

Disclosures: None.

Conflict of Interest: None.

Department of Oncology, Emory University Hospital, 2184 Briarwood Bluff Northeast, Atlanta, GA 30319, USA

E-mail address: roberta.kaplow@emoryhealthcare.org

Crit Care Nurs Clin N Am 26 (2014) 147–154

<http://dx.doi.org/10.1016/j.ccell.2013.09.007>

ccnursing.theclinics.com

0899-5885/14\$ – see front matter © 2014 Elsevier Inc. All rights reserved.

Decade	Ages 65–74	Ages 75–84	Ages 85 +
2010	416,896.8	309,509.2	129,969.7
2020	623,250.2	376,789	153,097.6
2030	754,156.6	577,297.7	203,943
2040	679,610.5	710,852.9	328,485.3
2050	719,310.7	654,560	447,394.1

Data from McEvoy LK, Cope DG. Caring for the older adult with cancer in the ambulatory setting. Pittsburgh (PA): Oncology Nursing Society; 2012. p. 1–7.

survival rate was 49%, indicating that this percentage of patients were alive 5 years after being diagnosed. From 1987 to 1989, the survival rate increased to 56%; and from 2001 to 2007 the survival rate climbed to 67%.^{6,7} The increase in survivorship has been ascribed to advances in treatment and supportive care.^{1,5}

Given the expected increase in the number of older people and the higher incidence of cancer in this group, it is increasingly likely that older patients with cancer will be admitted to the intensive care unit (ICU) for the prevention or management of complications of disease or treatments. It is therefore essential for critical care nurses to be mindful of the issues surrounding these individuals.¹ This article describes the patho-physiologic changes that occur with aging as they relate to cancer and cytotoxic therapies, implications related to drug therapy, and complications of treatment modalities as they relate to older person with cancer who may potentially be admitted to the ICU. Knowledge of these issues is essential for health care providers, so that they can face the complex challenges and optimize the outcomes of critically ill older persons with cancer.

PHARMACOLOGIC IMPLICATIONS OF AGING

Antineoplastic regimens have been increasing in complexity. Given the physiologic changes associated with aging (eg, hepatic and renal function), examination of the pharmacokinetics and pharmacodynamics of cancer therapies must take place. These changes may result in potentiated or decreased drug effects. Pharmacokinetics refers to how the body reacts to and copes with a drug. The 4 phases involved in pharmacokinetics are absorption, distribution, metabolism, and excretion.⁸

Absorption

Absorption, the first step in pharmacokinetics, occurs when a medication goes from its site of administration into the bloodstream. Many factors influence absorption, chief of which is how the medication is administered. Oral administration is the most complex modality, and requires several steps before it is absorbed. An oral medication must first be dissolved in gastric fluids. If a medication does not dissolve, it cannot be absorbed. It must then move to the site of absorption. Most absorption occurs in the duodenum of the small intestine, although some can occur in the stomach or large intestine.^{9,10} Many conditions decrease drug absorption and prolong the drug effect; for example, drug metabolism in the liver is delayed and renal function is decreased in patients with hypothyroidism.⁶ An example of the impact of gastrointestinal changes includes the development of oral mucositis, which may result in an increase in the

Download English Version:

<https://daneshyari.com/en/article/3109177>

Download Persian Version:

<https://daneshyari.com/article/3109177>

[Daneshyari.com](https://daneshyari.com)