

its maximally tolerable dose (10). Combination therapy may be preferred where the combination of drugs shows synergy or some additive effect, in terms of efficacy (and hopefully not in terms of safety). Drug combinations that have a synergistic effect are reported, for example, by Carlomagno (11) Rom et al. (12) Toledano et al. (13) Rodriguez-Galindo et al. (14) Gatzemeier et al. (15) and Tsimberidou et al. (16).

The ultimate goal of choosing neoadjuvant therapy over adjuvant therapy, or vice versa, is to increase survival of the patient. Survival is the gold standard endpoint in clinical trials in oncology.

The following details some of the advantages of neoadjuvant therapy over adjuvant therapy, and vice versa. One goal of this chapter is to provide working definitions for the terms neoadjuvant therapy and adjuvant therapy for the benefit of medical writers. Another goal is to list the advantages and disadvantages of these two approaches to study design, thereby facilitating the comparison and evaluation of data from clinical trials. Review articles comparing neoadjuvant therapy with adjuvant therapy are available (17,18).

The unit “gray,” abbreviated as “Gy,” is used in the medical literature when referring to doses of radiation. The gray is defined as $1 \text{ Gy} = 1 \text{ J/kg}$. This means that 1 gray is the energy absorbed by a mass of 1 kg when exposed to ionizing radiation providing 1 joule of energy. This unit was named after Louis H. Gray (1905–1965) (19,20).

II. ADVANTAGES OF NEOADJUVANT THERAPY

The advantages of neoadjuvant therapy over adjuvant therapy are as follows.

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