

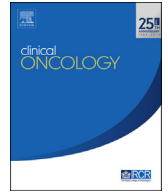


ELSEVIER

Contents lists available at [ScienceDirect](#)

## Clinical Oncology

journal homepage: [www.clinicaloncologyonline.net](http://www.clinicaloncologyonline.net)



### Fractionation Survey

### Reprint of: The Royal College of Radiologists' fractionation survey<sup>☆</sup>



T.J. Priestman<sup>1</sup>, J.A. Bullimore<sup>2</sup>, T.P. Godden<sup>2</sup>, G.P. Deutsch<sup>3</sup>

<sup>1</sup> Queen Elizabeth Hospital, Birmingham B15 2TH, UK

<sup>2</sup> Bristol Radiotherapy & Oncology Centre, Bristol BS2 8ED, UK

<sup>3</sup> Royal Sussex County Hospital, Brighton BN2 5BE, UK

DOI of original article: [http://dx.doi.org/10.1016/S0936-6555\(89\)80010-X](http://dx.doi.org/10.1016/S0936-6555(89)80010-X).

<sup>☆</sup> This article is a reprint of a previously published article. For citation purposes, please use the original publication details; *Clinical Oncology*, 1(1), pp. 39-46.

Correspondence and offprint requests to: T. J. Priestman, Queen Elizabeth Hospital, Birmingham B15 2TH, UK.

<http://dx.doi.org/10.1016/j.clon.2014.06.005>

0936-6555/© 2014 The Royal College of Radiologists. Published by Elsevier Ltd. All rights reserved.

**Keywords:** Radiotherapy; Fractionation

## INTRODUCTION

The evolution of dose/time schedules for radiotherapy over the past 50 years has been influenced by many factors. These include clinical observations, radiobiological experiments, the results of randomized trials and the need to adapt to the logistic constraints of individual departments. The inevitable consequence of this diversity of formative influences is a spectrum of fractionation schedules rather than a uniform approach to treatment. Although it is generally recognized that specific conditions may be managed by a variety of radiotherapy regimens there is very little information on the actual range of treatment schedules currently employed in the United Kingdom. This survey was therefore undertaken in order to identify the present practice of British radiotherapists in a number of common clinical situations. An indication was also sought as to why specific schedules were chosen, whether there was any particular geographical pattern in the distribution of long and short fractionation regimes and whether logistic constraints were a major factor in dictating treatment.

## MATERIAL AND METHODS

A questionnaire was circulated to consultant radiotherapists currently practising in the National Health Service in the United Kingdom who hold the Fellowship of the College. The questionnaire detailed six common clinical problems which might be referred to a radiotherapist (see Table 1). For each situation the consultants were asked whether or not they would recommend irradiation and, if so, what dose and fractionation schedule they would normally prescribe. They were also asked to indicate whether logistical factors influenced this choice and whether their training, participation in clinical trials or adherence to a local treatment policy contributed to their decision. Participation in a clinical trial, present or past, was also

*Correspondence and offprint requests to:* T. J. Priestman, Queen Elizabeth Hospital, Birmingham B15 2TH, UK.

recorded. Finally respondents were asked whether they felt the regimes they had chosen were optimal or not, or whether they simply did not know.

**Table 1.** Clinical problems considered in the survey

1. A 50-year-old man with squamous cell carcinoma of the bronchus considered to be inoperable due to local node involvement but with no evidence of distant spread. He is completely symptom-free.
2. A 50-year-old man with inoperable squamous cell carcinoma of the bronchus with no evidence of distant spread. He is distressed by persistent cough and haemoptysis.
3. A 45-year-old woman who has had a lumpectomy for a T2 carcinoma of the upper outer quadrant of the left breast, with microscopically clear resection margins but no axillary sampling. There is no evidence of distant spread.
4. A 65-year-old woman with metastatic carcinoma of the breast which is controlled by tamoxifen apart from a painful secondary in L2.
5. A 60-year-old man who has just undergone a “curative” anterior resection for a Dukes’ stage C carcinoma of the middle third of the rectum.
6. A 50-year-old woman with a T1,N0 squamous cell carcinoma of the right vocal cord.

The clinical situations were chosen to cover obviously palliative therapy (questions 2 and 4), potentially curative treatment (questions 3 and 6) and two clinical situations where the role of irradiation is less well defined (questions 1 and 5).

In order to try to compare the relative biological effects of different fractionation regimes the various schedules were also analysed on the basis of the time-dose-fractionation (TDF) concept (Orton and Ellis, 1973).

## RESULTS

Two hundred and twenty-seven questionnaires were circulated and 172 replies were received, giving an overall response of 76%. Replies were received from radiotherapists in all Health Regions in the United Kingdom, with at least 50% of consultants replying from each area. The questionnaires were analysed firstly by considering the responses to each question in turn and then on a geographical basis to see whether obvious differences in practice were apparent in different Regional Health Authorities.

Download English Version:

<https://daneshyari.com/en/article/5698223>

Download Persian Version:

<https://daneshyari.com/article/5698223>

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