Melanoma Task Force (META) Project in Italy: Methodology

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Key Words

Melanoma Task Force (META) · Italy · Melanoma treatment survey

Abstract

A nationwide survey of the diagnostic-therapeutic models used in Italian hospitals for the treatment of melanoma was performed. The study was conducted using paper-assisted personal interviews in hospitals throughout the country [De Vaus DA: Surveys in Social Research, ed 4. London, Routledge, 1995]. Face-to-face interviews were conducted by interviewers specialized in medical research. These 45-minute interviews took place in the office/clinic of the interviewee, during which the interviewer compiled and checked questionnaires for completeness and accuracy. In each hospital, clinicians responsible for the diagnosis, therapy or follow-up phases of melanoma care were interviewed according to their area of expertise. When possible, interviewees included a dermatologist, a surgeon and an oncologist from each hospital.

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Population and Sample

A representative sample of hospitals was constructed from among all Italian hospitals with ≥ 200 beds. The reference universe was extracted from the database of Italian hospitals provided by the Health Ministry, composed of 285 hospitals that were subdivided into 145 hospitals with 200–399 beds and 140 hospitals with ≥ 400 beds.

In total, the number of new diagnoses per year is 7,000–8,000 in Italy: about 1,500 in centers with high numbers of melanoma patients treated and 5,700–7,000 in the remaining Italian hospitals. The highest numbers of melanoma patients treated/followed per year are 400 in high accruing centers and 134 in hospitals.

Starting from this population, the sample was constructed with the following stratification parameters: (1) number of beds and (2) geographic distribution. The investigative sample was composed of 104 Italian hospitals representing the reference universe. This included 50 hospitals with 200–399 beds and 54 hospitals with ≥ 400 beds. We also included 16 centers of excellence selected on the basis of the presence of well-known doctors working in the field of melanoma in these hospitals. A median value of 25 diagnoses was used as a cut-off point to group

hospitals/centers into low- and high-volume centers. Thus hospitals/centers included in this search are analyzed considering 56 centers with more diagnoses (mean = 100 per year, range 21–1,500) and 64 centers with fewer diagnoses (mean = 15 per year, range 1–100). The mean numbers of melanoma patients treated/followed per year in the two groups are 294 in the large hospitals/centers and 64 in the small hospitals/centers.

The incidence of melanoma in the centers surveyed represents one third of the incidence in the Italian cancer register network (AIRTUM).

Interview

The interview was conducted with 2–3 members of the medical staff at each center, resulting in approximately 250 clinician interviews, between April 15, 2008 and May 23, 2008. A sample of 104 hospitals was estimated, considering correction parameters for finite populations, to guarantee a ‘margin of error’ – at the 95% confidence level – that the estimate obtained (percent values of all questions on the questionnaire) would have a maximum sampling error of 7.7%.

Sampling Method

A proportionally stratified random sample was selected as follows: The community to be studied, constituted by the universe of Italian hospitals with ≥ 200 beds, was initially subdivided into sections or ‘layers’ on the basis of hospital size in beds. The number of interviews to be conducted was then calculated in each ‘layer’ (hospitals with 200–399 beds and hospitals with ≥ 400 beds). Each of the two layers was successively subdivided into another ‘lay-

er’ on the basis of its geographic area. In this way, the number of interviews per ‘cell’ was calculated so that the number of interviews was proportional to the distribution of hospitals of each size in the territory. This method, known as the proportionally stratified sampling method [1], ensures that all of the units included in the sample reproduce ‘in miniature’ the whole community.

Statistical Analyses

The data were analyzed using descriptive and inferential statistics. Each variable was analyzed by the total sample/total Italian hospitals, and comparisons were made between high- and low-volume centers. Descriptive statistics included percent, mean and standard deviation. Pearson’s χ^2 test and the zeta test were used to compare the proportions between high- and low-volume centers. A 95% confidence level was used in determining the significance of all data collected in the study. The maximum sampling error was 7.7%. Since many variables were evaluated and the p values presented were not adjusted for multiple comparisons, findings with only borderline significance should be interpreted with caution.

Disclosure Statement

The authors have no disclosure in relation to this subject.

Reference

- 1 Cochran WG: Sampling Techniques, ed 3. New York, John Wiley & Sons, 1977.