Hospital policies on life-sustaining treatments and advance directives in Canada

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Objective: To determine the prevalence and content of hospital policies on life-sustaining treatments (cardiopulmonary resuscitation [CPR], mechanical ventilation, dialysis, artificial nutrition and hydration, and antibiotic therapy for life-threatening infections) and advance directives in Canada.

Design: Cross-sectional mailed survey.

Setting: Canada.

Participants: Chief executive officers or their designates at public general hospitals.

Main outcome measures: Information regarding the existence of policies on life-sustaining treatments or advance directives and the content of the policies.

Results: Questionnaires were completed for 697 (79.2%) of the 880 hospitals surveyed. Of the 697 respondents 362 (51.9%) sent 388 policies; 355 (50.9%) sent do-not-resuscitate (DNR) policies (i.e., policies that addressed CPR alone or in combination with other life-sustaining treatments). Of the 388 policies 327 (84.3%) addressed CPR alone, 28 (7.2%) addressed CPR plus other life-sustaining treatments, 10 (2.6%) addressed advance directives, and the remaining 23 (5.9%) addressed other life-sustaining treatments. Of the 355 DNR policies 1 (0.3%) stated that routine discussion with patients is required, 315 (88.7%) restricted their scope to terminally or hopelessly ill patients, 187 (52.7%) mentioned futility, 29 (8.2%) mentioned conflict resolution, 9 (2.5%) and 13 (3.7%) required explicit communication of the decision to the competent patient or family of the incompetent patient respectively, 110 (31.0%) authorized the family of an incompetent patient to rescind the DNR order, 224 (63.1%) authorized the nursing staff to do so, and 217 (61.1%) authorized physicians to do so.

Conclusions: Although about half of the public general hospitals surveyed had DNR policies few had policies regarding other life-sustaining treatments or advance directives. Existing policies could be improved if hospitals encouraged routine advance discussions, removed the restriction to terminally or hopelessly ill patients, scrutinized the use of the futility standard, stipulated procedures for conflict resolution, explicitly required communication of the decision to competent patients or substitute decision-makers of incompetent patients and scrutinized the provision allowing families and health care professionals to rescind the wishes of now incompetent patients.
The Quebec case of Nancy B. has focused Canadians’ attention on the use of life-sustaining treatment.1 Hospital policies can provide ethical guidance in such situations.2,3 In 1984 the Canadian Hospital Association (CHA), the CMA and the Canadian Nurses Association (CNA) published a joint statement on terminal illness,4 which was based on a 1982 CMA statement that was republished in 1987.5 In 1992 the CMA issued a policy statement on advance directives6 (documents completed by competent people that state who they want to make treatment decisions and what treatments they want in various situations if they become unable to make such decisions for themselves).

Although surveys in the United States have examined the prevalence of policies in health care facilities regarding do-not-resuscitate (DNR) orders7-9 and advance directives10 we are unaware of studies in the literature of such policies in Canada. We surveyed Canadian hospitals to describe the prevalence and content of policies on life-sustaining treatment and advance directives.

Methods

The chief executive officers of all hospitals listed in the 1990–91 Canadian Hospital Directory11 as “public general hospitals” were mailed a questionnaire, in English or French. The questionnaire, which was not pretested, contained questions about the existence of hospital policies on life-sustaining treatment (including cardiopulmonary resuscitation [CPR], mechanical ventilation, dialysis, artificial nutrition and hydration, and antibiotic therapy for life-threatening infections) or advance directives and asked respondents to send us copies of the policies. Policies that addressed CPR alone or CPR and other life-sustaining treatments were considered DNR policies. (The questionnaire is available from the authors upon request.) Hospitals that did not respond within 1 month were contacted again by mail. If a response required clarification (e.g., a respondent indicated that the hospital had a policy but did not enclose it), a follow-up letter was sent.

Policies were excluded if they did not pertain to medical ethics (e.g., if they contained only the technical or clinical details of administering treatment) or if they had not yet been approved by the hospital. Hospitals indicating that they had no policies related to life-sustaining treatment or advance directives and those that sent policies that were later excluded were counted as re-

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**Objectif** : Déterminer la prévalence et la teneur des politiques des hôpitaux sur les interventions de maintien de la vie (réanimation cardiorespiratoire [RCR], ventilation mécanique, dialyse, alimentation et hydratation artificielles et traitement aux antibiotiques d’infections graves) et des directives préalables au Canada.

**Conception** : Enquête postale transversale.

**Contexte** : Canada.

**Participants** : Directeurs généraux d’hôpitaux généraux publics ou leurs remplaçants désignés.

**Principales mesures de résultats** : Information sur l’existence de politiques relatives aux interventions de maintien de la vie ou aux directives préalables, et teneur des politiques.

**Résultats** : On a rempli des questionnaires au sujet de 697 (79.2 %) des 880 hôpitaux interrogés. Parmi les 697 répondants, 362 (51.9 %) ont envoyé 388 politiques; 355 (50.9 %) ont envoyé des politiques de non-réanimation (c.-à-d. des politiques portant sur la RCR seule-ment ou sur la RCR combinée à d’autres interventions de maintien de la vie). Parmi les 388 politiques, 327 (84.3 %) portaient sur la RCR seulement, 28 (7.2 %) portaient sur la RCR et sur d’autres interventions de maintien de la vie, 10 (2.6 %) portaient sur les directives préalables et les 23 autres (5.9 %) portaient sur d’autres interventions de maintien de la vie. Parmi les 355 politiques de non-réanimation, 1 (0.3 %) prévoit que la discussion de routine avec les patients s’impose, 315 (88.7 %) limitent leur application aux patients en phase terminale ou sans espoir, 187 (52.7 %) font mention de la futilité des traitements, 29 (8.2 %) font mention de règlement des différends, 9 (2.5 %) et 13 (3.7 %) exigent une communication claire de la décision aux patients capables ou aux membres de la famille des patients incapa-bles respectivement, 110 (31.0 %) autorisent les membres de la famille d’un patient incapable à annuler l’ordre de non-réanimation, 224 (63,1 %) autorisent le personnel infirmier et 217 (61,1 %) autorisent les médecins à le faire.

**Conclusions** : Même si la moitié des hôpitaux généraux publics faisant l’objet de l’étude ont une politique de non-réanimation, ceux qui ont une politique relative à d’autres interventions de maintien de la vie ou aux directives préalables sont peu nombreux. Les politiques actuelles pourraient être améliorées si les hôpitaux encourageaient les discussions préalables de routine, supprimaient la restriction aux cas des patients en phase terminale ou sans espoir, analysaient l’utilisation de la norme relative à la futilité, prévoyaient des procédures de règlement des différends, exigeaient explicitement la communication de la décision aux patients capables ou aux mandataires des patients incapables et analysaient la disposition permettant aux membres de la famille et aux professionnels de la santé d’annuler les directives préalables des patients devenus incapables.
sponding hospitals without policies. Hospitals indicating that they had pertinent policies but did not send us a copy of them despite follow-up were also counted as responding hospitals without policies (this applied to 23 hospitals for DNR policies and 9 for non-DNR policies). If information in the questionnaire differed from that in the actual policies sent, the latter was taken as correct.

Analysis of the content of the policies was conducted with the use of a structured data abstraction form containing the following criteria: type of policy (CPR only, CPR and other life-sustaining treatments, mechanical ventilation only, dialysis only, artificial nutrition and hydration only, advance directive, other); similarity of policy to the CHA/CMA/CNA joint statement; requirement for routine discussion; restriction to CPR only; affirmation of comfort measures or palliation; restriction of policy to a particular facility, service, unit or department; restriction of policy to a particular class of patients; mention of futility, uselessness or no medical benefit, or similar concept; mention of competency or decision-making capacity; affirmation of physician’s responsibility to discuss life-sustaining treatment decision with patient or surrogate; mention of people involved in decision making regarding life-sustaining treatments; mechanism to resolve disagreements between patient or surrogate and physician; explicit requirement for recording decision or discussion, communicating decision and reviewing or updating decision; mention of resuscitating or changing life-sustaining treatment decision; explicit reference to philosophic principles or values; and year in which the policy was initially approved. (The data abstraction form used in the content analysis is available from the authors upon request.) Because interpretation of these criteria is potentially subjective the content analysis was conducted by two independent reviewers, and differences were resolved by consensus or, if not possible, by a third reviewer. Hospital characteristics (number of beds, budget, ownership, teaching status and provision of long-term care) were obtained from the Canadian Hospital Directory.

Statistical analysis was performed with the SAS computer program (SAS Institute, Cary, NC). Univariate analysis was performed with the use of proportions and bivariate analysis with the \( \chi^2 \) statistic for categoric variables and the unpaired \( t \)-test for continuous variables.

The study was approved by the Human Subjects Review Panel of the University of Toronto.

**Results**

Of the 880 hospitals surveyed, questionnaires were completed for 697 (79.2%). Compared with the nonresponding hospitals the responding ones had significantly more beds and a larger budget and were more likely to be a teaching hospital, have a religious affiliation and provide long-term care (Table 1).

Of the 697 respondents 362 (51.9%) sent 388 policies regarding life-sustaining treatment or advance directives: 338 hospitals (93.4%) had a single policy, 22 (6.1%) had two policies and 2 (0.6%) had three policies. Compared with the hospitals that had no policies, those with policies had more beds, a larger budget and were more likely to be teaching hospitals (Table 2). Of the 697 respondents 355 (50.9%) sent DNR policies; however, the prevalence of responding hospitals with DNR policies ranged from 17.6% (in Quebec) to 79.2% (in New Brunswick) (Table 3).

Of the 388 policies 355 (91.5%) were DNR policies: 327 (84.3%) addressed CPR alone, and 28 (7.2%) addressed CPR and other life-sustaining treatments. Few of the policies specifically addressed mechanical ventilation (1 [0.3%]), dialysis (2 [0.5%]) or artificial nutrition and hydration (2 [0.5%]), and none had a specific policy regarding the forgoing of antibiotic treatment. Ten policies (2.6%) addressed advance directives. The remaining 18 policies (4.6%) focused on blood transfusion (7), palliative care (3), treatment of the terminally ill (5) and other issues (3).

Of the 355 DNR policies 40 (11.3%) were identical to the CHA/CMA/CNA joint statement guidelines, and an additional 163 (45.9%) were influenced by the guidelines (i.e., they incorporated the guidelines in part or ref-
erenced them). The specific content of the 355 DNR policies is detailed in Table 4. There has been rapid growth in the adoption of DNR policies in Canada since the mid-1980s (Fig. 1).

Discussion

About half of the hospitals surveyed had DNR policies, but few had policies regarding other life-sustaining treatments. Thus, there is room for further development and dissemination of life-sustaining treatment policies in Canada.

The low prevalence of policies on advance directives is not surprising. Only four provinces (Manitoba, Ontario, Quebec, and Nova Scotia) have passed legislation on advance directives. Quebec and Nova Scotia have legislation that is limited to proxy directives, and Manitoba and Ontario enacted legislation after this study was completed. As laws concerning advance directives are passed in Canada, more hospitals will likely adopt policies for life-sustaining treatments and advance directives.

The prevalence of policies was not uniform across Canada. Larger hospitals, with greater financial resources, and teaching hospitals were the most likely to formulate a policy. Moreover, the proportion of policies that dealt with DNR orders varied considerably across the country, from 17.6% to 79.2%. If governments and professional organizations wish to increase the prevalence of ethics policies, our data could help to target their efforts.

The CHA/CMA/CNA joint statement influenced most of the DNR policies (57.2%). A similar finding was obtained in a Minnesota study of hospital DNR protocols, in which 67% were either identical to or derived from guidelines issued by the Minnesota Medical Association. Therefore, publication of model policies may be effective in increasing the prevalence of hospital policies on life-sustaining treatments and advance directives.

In contrast to the US patient self-determination provisions of the Omnibus Budget Reconciliation Act, which requires that on admission patients be informed of
their rights under state law to forgo life-sustaining treatments and to complete an advance directive, only one of the policies in our study stated that routine discussion of DNR orders is required with all patients admitted to hospital. Such advance discussions permit patients to consider the use of life-sustaining treatments while they are still able to do so, and hospital policy may help to ensure that these discussions occur.

Of concern was the 88.7% of the DNR policies that were restricted to “terminally ill” or “hopelessly ill” patients. All people have the legal right to forgo life-sustaining treatment, and hospital policies should be revised to reflect this.

Most (52.7%) of the policies made reference to futility. Since use of the futility standard in health care decision making remains highly controversial17-23 frequent reliance on futility in Canadian policies is disturbing and deserves further attention.

Possible disagreement among patient, family and staff was infrequently addressed in the policies. Since the potential for conflict certainly exists, and hospital policies may help in such cases,2 policies should be revised to provide mechanisms for conflict resolution.

Few of the policies stated that communication of the DNR decision to the competent patient (2.5%) or the family of the incompetent patient (3.7%) is required. This may have been just an oversight, since most of the policies affirmed the right of competent patients (93.8%) and the families of incompetent patients (93.5%) to participate in decision making. None the less, an explicit statement requiring communication of the decision could be expected to increase communication between physician and patient (or family) and foster patient autonomy. Conversely, only 3.4% of the policies stated that communication of the decision is required to the family of a competent patient. Such communication should only occur with the approval of the patient.

The family of an incompetent patient was given authority to rescind the DNR order in 31.0% of the policies; nursing staff and physicians were given this authority in 63.1% and 61.1% of the policies respectively. Since the precise grounds on which DNR orders could be rescinded were usually not stipulated, these provisions could potentially include overruling the expressed wishes of a previously competent patient, thereby violating his or her autonomy.24 This potential problem could be avoided if policies stipulated not only who has the authority to rescind a DNR order but also on what grounds (e.g., improved prognosis, change in patient’s wish regarding CPR, granting of some leeway by patient to physician or surrogate in interpreting his or her advance directive).25,26

Our study has six main limitations. First, because the responding hospitals differed from the nonresponding ones our findings are susceptible to nonresponse bias. However, the high response rate (79.2%) helped to reduce this possibility. If none or all of the nonresponding hospitals actually had policies for life-sustaining treatments or advance directives the rate of hospitals with such policies would be as low as 41% or as high as 62%. Second, because we counted responding hospitals that indicated on the questionnaire that they had policies but did not send us any as hospitals without policies, our

![Fig. 1: Number of hospitals with do-not-resuscitate (DNR) policies in Canada from 1972 to 1991. Thirty-one hospitals are excluded because the DNR policies did not state the year in which they were first adopted.](image-url)
estimate of the prevalence of policies is conservative. However, even if all of these hospitals were counted as having policies, our conclusions would not be different. Third, content analysis of the policies is, by nature, subjective. However, to minimize bias, two reviewers independently analysed the policies using a structured instrument, and disagreements were resolved by consensus or in consultation with a third observer. Fourth, because we sampled the entire population of public general hospitals, our data are generalizable to such hospitals in Canada. However, caution should be exercised in generalizing the results to other countries. Fifth, our goal was to describe the prevalence and content of policies on life-sustaining treatments and advance directives in Canada and not to conduct a normative, ethical analysis of the merits of specific issues contained in the policies (e.g., futility). However, ethicists can now begin such an analysis from a foundation of empiric fact. Finally, we did not examine the impact of policy on actual practices in hospitals. Some hospitals without policies may provide highly ethical care, whereas some with outstanding policies may not.

In conclusion, although about half of the Canadian hospitals surveyed had policies regarding DNR orders, few had policies regarding other life-sustaining treatments or advance directives. Existing policies could be improved if hospitals encouraged routine advance discussions, removed the restriction to terminally or hopelessly ill patients, scrutinized the use of the futility standard, stipulated procedures for conflict resolution, explicitly required communication of the decision to competent patients or substitute decision-makers of incompetent patients and scrutinized the provision allowing families and health care professionals to rescind the wishes of now incompetent patients. Our findings add a uniquely Canadian perspective on policies to descriptive surveys of the opinions of Canadian physicians, patients and the public regarding life-sustaining treatments and advance directives.

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