

## Do-not-resuscitate orders and long-term care institutions

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Policies for do-not-resuscitate (DNR) orders have become increasingly common in acute care hospitals in Canada since guidelines were first proposed by the Canadian Medical Association, the Canadian Hospital Association and the Canadian Nurses Association.<sup>1</sup> Now there is pressure for long-term care institutions to introduce similar guidelines. The recommendations spring from the United States,<sup>2</sup> where medicolegal concerns are very prominent because of what has been described as the "outrageous litigiousness" of the Americans, which is typified by the car bumper sticker "Become a doctor and help a lawyer make a living".<sup>3</sup> A recent opinion, also from the United States, is that the decision to use cardiopulmonary resuscitation (CPR) in the event of cardiac arrest should be made in accordance with accepted standards regardless of the setting.<sup>4</sup>

The current situation in long-term care institutions varies. Some hospitals have adopted DNR orders, others tell patients at the time of admission that CPR is not available, and others have no policy. However, DNR orders were designed for acute care hospitals, and there is a danger in applying acute care protocols to patients in long-term care facilities without considering their appropriateness.

DNR orders were introduced to eliminate inappropriate use of CPR. One should ask whether the use of DNR orders is the best way to achieve this goal in long-term care facilities, and, if not, how the guidelines can be improved.

### CPR

Closed-chest cardiac massage was introduced in 1960 to resuscitate victims of sudden cardiac

arrest.<sup>5</sup> Initial indications were arrest due to acute myocardial infarction, heart block, drowning, electric shock, surgery, accidents with anesthetics and untoward effects of drugs.<sup>6</sup> However, the widespread training of hospital personnel in CPR techniques and the development of special teams led to expansion of the initial clinical indications. Now CPR is likely to be performed regardless of the underlying problems and prognosis unless a DNR order has been written. As a result there have been many failures, and the inevitable dying process has often been painfully prolonged.

Many studies have confirmed that age alone is not critical to successful CPR,<sup>7-10</sup> and it is clear that lack of success is related to the underlying disease and its extent, as well as to the dependency of the patient. Bedell and colleagues<sup>10</sup> found that among patients with hypotension, renal failure, pneumonia, cancer or a homebound lifestyle the rate of death after cardiac arrest and CPR measures was 95%; no patients with septicemia or acute stroke were discharged from hospital. Peatfield and associates<sup>11</sup> found that all patients with malignant disorders, diabetes or hemorrhagic conditions died despite CPR efforts. Similarly, in the study of Johnson and coworkers<sup>12</sup> no patients with septicemia, cancer, gastrointestinal hemorrhage or a condition resulting from trauma survived cardiac arrest to be discharged from hospital, and in only 1 of 32 patients with uremia was CPR successful. According to Messert and Quagliari,<sup>9</sup> patients who do not survive include those who are a poor risk, those with terminal cancer and elderly patients with multiple-system disease in whom one system or another fails.

Many patients in whom CPR is successful die later. Hershey and Fisher<sup>13</sup> found that only 2 of 35 patients who underwent CPR on a general hospital ward survived for a long period; this low figure was attributed to the fact that these patients had chronic illnesses associated with poor outcomes. A British study demonstrated that the outcome of CPR is much influenced by the selection of the patients, the cause of the cardiac arrest and the speed at which resuscitative efforts are begun.<sup>14</sup>

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The authors concluded that CPR should not be attempted in patients with terminal disease or in those with chronic, progressive and irreversible disabling diseases, including multiple organ failure, who are highly dependent on others.

Patients in long-term care hospitals require at least 3 to 4 hours of nursing care daily, and most remain in hospital until they die. In the terminal stages of disease such patients become very dependent and would therefore not benefit from CPR.

### DNR orders

DNR orders were established to prevent unnecessary application of CPR. However, the underlying premise is that no one can die in a hospital without having undergone CPR unless a DNR order has been written, in spite of the limited clinical indications for successful CPR.

The present DNR policies have problems related to lack of patient and family involvement<sup>15-17</sup> and lack of staff awareness of the policies.<sup>18</sup> It is not surprising that many physicians are uncomfortable about discussing CPR with dying patients and their families when there is no clinical chance of its success. There may also be difficulties if the families feel guilty about not insisting that everything possible be done to save the patient. Patients for whom DNR orders have been written may receive less attentive care from staff who feel that their role has been diminished. However, this is a time when extreme responsibility, extraordinary sensitivity and heroic compassion are required.<sup>19</sup>

A patient's autonomy and right to accept or refuse treatment are important; nevertheless, when CPR will not be successful the patient's choice is between a possibly painful, prolonged dying process and a peaceful death.

DNR policies are probably more complicated in long-term care facilities, where physicians would need to spend a lot of time with patients and families discussing an intervention that is clinically contraindicated in most cases.

### Suitable guidelines

Besdine<sup>20</sup> was right in stating that DNR orders should not be an issue in long-term care institutions. However, he developed much-needed policies for the management of acutely ill and dying patients in nursing homes based on three types of intervention: DNR orders, do-not-hospitalize orders and do-not-treat orders. Levenson, List and Zaw-Win<sup>21</sup> established similar guidelines according to the patient's condition and prognosis: no therapeutic effort, limited use of therapeutic measures, maximum use of therapeutic measures within the limits of the institution and maximum use of therapeutic measures with transfer to an acute care hospital if necessary.

In the Department of Extended Care at Sunny-

brook Medical Centre in Toronto terminally ill patients with advanced, incurable and irreversible disease are identified by the attending physicians. The prognosis is discussed with the patient and family when appropriate and possible. Recommendations on treatment intervention are explained, and palliative care is provided for all patients.

Clinical indications may require the administration of other types of care, including acute medical care, to relieve distressing symptoms. Transfer to an acute care hospital is rarely necessary.

Our policy could be extended to include the identification of patients who might benefit from CPR and discussion with the patient and family about their wishes should an acute cardiac event occur.

Long-term care institutions have a major role in redressing what have been described as the shortcomings of high-technology medicine,<sup>22</sup> particularly with respect to the management of elderly dying patients. Such care requires multidisciplinary teamwork as well as an awareness of the wide-ranging psychosocial needs of the patient and family. There is a need for flexibility of care, but inappropriate treatment and investigation should be avoided at all costs.<sup>23</sup> This approach can be implemented throughout the institution.<sup>24</sup>

### Conclusion

In summary, CPR is beneficial in selected cases of cardiac arrest. However, its widespread use has led to many problems that have not been resolved by the use of DNR orders. Since CPR is clinically not beneficial for most patients in long-term care institutions, such facilities should concentrate on forming policies that promote the provision of excellent symptomatic control in terminally ill patients, with identification of those for whom acute care interventions fall within the scope of the institution's resources; rarely would transfer to an acute care hospital be necessary. This approach would allow more elderly patients a peaceful death when death is inevitable; however, it would not preclude the use of other clinically indicated interventions acceptable to the patient and family.

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## Occupational stress reactions: lessons for management

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In 1869 a US physician, Charles M. Beard, introduced the word "neurasthenia" in an article in the *Boston Medical and Surgical Journal* to describe a state of nervous weakness or exhaustion in the absence of known disease. A man of many parts, the New York practitioner was an amateur sociologist, a medical encyclopedist, a popular medical writer, a student of electrotherapy and the author of a treatise on "medical electricity".<sup>1</sup> Concerned that the human nervous system was being overtaxed by "modern" contraptions that required people to perform complex tasks at unprecedented speeds, he went so far as to assert that the inventions of one man, Thomas Edison, were responsible for overstressing the nervous

resources of Americans.<sup>2</sup> Anxiety spells, fainting, autonomic discharges and lassitude, he thought, were merely physiologic aberrations caused by excessive demands on a limited supply of nervous energy. Beard's medical contemporaries accepted his ideas partly because they promised mechanistic explanations for seemingly inexplicable and often bizarre symptoms. In time, science would uncover the physiologic processes responsible. Beard's theory also satisfied social biases of the time because its premise was the greater vulnerability of "the educated and affluent [who] enjoyed their places in the social order by virtue of their more sensitive 'nervous organization'".<sup>3</sup>

In modern times neurasthenia has gone out of fashion, perhaps because the search for a physiologic dysfunction that characterizes the nervous exhaustion of neurasthenia has stalled. Today "functional" signifies that there is no anatomic or physiologic abnormality, almost the opposite of its 19th-century meaning. "Functional" conditions are

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