Public access defibrillation

To the editor:

In the October 2001 issue of *CJEM* the Canadian Association of Emergency Physicians Public Access Defibrillation (PAD) Working Group published their position statement in support of PAD programs.[1] This follows a similar endorsement by the Canadian Heart and Stroke Foundation.[2] While I applaud the efforts of our association in being proactive with regard to health technology assessment, I feel that a great impediment to PAD programs may come from the fact that most cardiac arrests do not occur in public places.

Survival to cardiac arrest is currently less than 5% in Ontario.[3,4] Obviously, something needs to be done. While early defibrillation by first responders (firefighters, police, emergency medical services [EMS]) has been shown to improve survival to cardiac arrest,[3] the potential impact of a widespread layperson PAD program in the community may not. In a study of 1373 cardiac arrest cases over a 5-year period in the Ottawa region, approximately 85% of cardiac arrests occurred in private homes, 10% on the street and only 5% in large public places.[4] A similar study is under way in 21 Ontario communities. In addition, ⅔ of cardiac arrest victims were found to be in asystole;[4] those cases could not be helped by defibrillation. Therefore, we can estimate that less than 3% of all cardiac arrest cases could benefit from such a PAD program. This being said, a person is 3 times more likely to survive if cardiopulmonary resuscitation (CPR) is performed immediately after collapse.[5] Yet only 3% of the Canadian population knows how to perform CPR. Almost 9 times out of 10, nothing is being done before EMS arrive.[5] If only 50% of cardiac arrest cases were to receive immediate CPR, survival to cardiac arrest could be improved from the current 5% to over 30%.[6]

With those statistics in mind, and with an international trial under way evaluating the outcome of PAD programs in North America (The PAD Trial), it may be premature to endorse any PAD program at this moment. It may be that if more resources were devoted to increasing the bystander rate of CPR in the population, even better results could be achieved. Such a program would benefit the whole population, not just the few and far between cases of cardiac arrest that occur in public places.

Let's be cautious before we endorse PAD programs.

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For reasons of space, letters may be edited for brevity and clarity.

Propofol in the ED: Check your doses!

To the editor:

Doses of 16–33 mg/min for patient-controlled sedation were repeatedly quoted in Dr. Ducharme's commentary.[1] These doses would be expected to result in general anesthesia within 10 minutes! Propofol infusions in the range of 20–40 mcg/kg/min (i.e., 1.5–3 mg/min for a 70-kg patient) titrated to patient response with boluses of approximately 200 mcg/kg (15 mg) are more commonly used for procedural sedation. (Product monograph recommendations for surgical diagnostic sedation are for 25–75 mcg/kg/min after 0.5–1.0 mg/kg bolus over 3 to 5 minutes.)

I have difficulty understanding how Dr. Ducharme could author a commentary on propofol that repeatedly quotes infusion rates for sedation that are over 10 times those recommended and used clinically. Although Dr. Ducharme undoubtedly has experience with intermittent mini-dose titration of propofol, his commentary suggests this is not the case with administering propofol infusions. Readers who utilize Dr. Ducharme's recommended propofol infusion rates of 16–33 mg/min for sedation will quickly find themselves managing an apneic, unconscious patient. Dr. Ducharme's proposed study on pa-

tient-controlled sedation using propofol in doses of greater than 25 mg/min would undoubtedly be a short, unpublished study.

I do, however, agree with Dr. Ducharme's comments that mini-dose titration of propofol (20 mg every 45–60 seconds) for sedation during cardioversion minimizes the incidence of apnea and hypotension and allows for rapid emergence for the procedure. In obese patients I have found that positioning the patient in the right lateral decubitus position (recovery position) prior to cardioversion has several advantages.

1. The anterior-posterior placement of the paddles in the obese patient provides a more direct route of energy through the heart and in my experience is associated with a high success rate.

2. Airway obstruction is less likely to occur in the recovery vs. the supine position (as there is a tendency for obstruction to occur as a result of the tongue falling back when the patient is in the supine position).

3. Airway assistance and manoeuvres (jaw thrust, chin lift, positive pressure ventilation) are essentially never required in the recovery position when propofol is titrated properly.

4. Having the patient position himself in the recovery position prior to the procedure saves the staff from manually turning the unconscious patient on his side at the end of the cardioversion.

5. Obstructed respiratory efforts in the supine position generate positive intra-abdominal and negative intra-thoracic pressures, which increases the likelihood of gastric regurgitation and or aspiration.

6. The recovery position is preferable to the supine position for suctioning should regurgitation occur.

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Reference
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[The author responds:]

I thank Dr. Sullivan for his comments, and am encouraged by his endorsement of mini-dose titration of propofol. I need to correct him in his misunderstanding of my comments about patient-controlled sedation. I did not suggest, nor would I, that infusions of propofol in the order of 16–33 mg/min be used. The study quoted[1] showed that patients giving themselves such doses every minute by pushing on a button could not sedate themselves to the point of deep sedation (i.e., loss of protective reflexes). This study was quoted to demonstrate the safety of the mini-dose approach and was not meant to encourage ongoing infusions.

I am otherwise heartened by this positive input from Anesthesia, and encourage all emergency departments who are hoping to initiate safe procedural sedation policies to work with their anesthesia and emergency colleagues to establish standardized practices.

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Reference
1. Smith AF, Thorpe SJ, Cook LB. Patient-controlled sedation using propofol: randomized, double-blind dose refinement. Eur J Anaesthesiol 1999;15: 18-22.

Paediatric CTAS

To the editor:

Our centre is one of the busiest urban pediatric emergency departments (EDs) in North America, with more than 65 000 visits annually. We implemented the Canadian Paediatric Triage and Acuity Scale (PaedCTAS) 5 months ago [since published as a supplement to the October 2001 issue[1] of *CJEM*] and we are generally pleased with it; it has been quite easy to use. However, from the time it was discussed at meetings of the Canadian Paediatric Society and Canadian Association of Emergency Physicians, we have had concerns about the infection category. Our experience is proving that these concerns are real.

Lumping all children "*aged 3 to 36 months with fever*" in the Level III triage category is unrealistic. Febrile children in this age group represent the most frequent reason for consultation at our centre, and most have relatively benign viral illnesses. If we apply the PaedCTAS consistently, these patients disproportionately expand the Level III triage category, forcing potentially sicker patients with asthma, possible appendicitis or moderate allergic reactions (who should be seen earlier) to wait longer than necessary.

In general EDs with less pediatric experience it may be acceptable to lump all of these children into Level III, but in centres with pediatric triage expertise it is important to redefine this category based on other established criteria, so that some patients can be moved into higher or lower triage levels. Our triage nurses now do this informally without benefit of objective criteria, by placing selected Level III patients ahead of others who arrived earlier. Utility and relevance are critical characteristics of a triage tool and, at least in the infection category, we feel that the PaedCTAS has failed.

The Canadian Emergency Department Triage and Acuity Scale (CTAS)[2] has become a mandatory triage tool in our provincial EDs. Pediatric centres need an appropriate triage acuity scale to help us gather reliable information and define our acuity, resource level and performance. Before recommending the PaedCTAS as a national stan-

dard, its reliability and validity must be demonstrated.

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2. Beveridge R, Clarke B, Janes L, Savage N, Thompson J, Dodd G, et al. Canadian Emergency Department Triage and Acuity Scale: implementation guidelines. CJEM 1999;1(3 Suppl):S1-24.

The trainee in difficulty

To the editor:

I congratulate Robert McGraw and Sarita Verma on their excellent review[1] of "The trainee in difficulty" in the July 2001 issue of *CJEM*. The editorial comments by Tim Allen were also timely and helpful.[2] Several key suggestions have been made that will help us all in our efforts to make the teaching environment in our emergency departments as effective as it can be.

Medical school enrollment is expanding nationally. Emergency medicine is increasingly becoming a core element of many medical school curricula. Our EDs are taking on a greater role as the setting where medical students gain their exposure to clinical medicine. We therefore clearly have an expanding role in not only teaching but in identifying the student in difficulty. Our role is one of both identification and, at times, remediation of students when they fail to meet the standards set.

The ED has several features that make it a setting particularly well suited to teaching and evaluation. I am very concerned though that with the national trend to overcrowding, delays in patient care and resource availability that is often less than ideal, the conditions for optimal teaching are eroding. We muct continue to apply pressure wherever and whenever we can to develop solutions when our departments are blocked and understaffed. We must do this as patient advocates and as educators.

With respect to identifying students in difficulty, feedback loops and early reporting of students whose performance falls short of what we expect are key requirements in our role. A further way in which we can improve our vigilance and consistency is the suggestion that students be encouraged to ask for feedback at an appropriate time at the end of each clinical shift. This critical step can become an expectation whenever staff physicians work with medical students. If shift evaluation forms are used, students can provide these at the same time. This can be an ideal time for assessment and feedback while the events of the shift remain fresh in the minds of both students and staff.

Thank you again to the authors of these articles. Their insights can be helpful to us all and can improve the way we evaluate medical students. Their suggestions can improve our contribution as teachers and will help us to develop a unique approach to medical undergraduate education in which we can all take pride.

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Alternate funding plans

To the editor:

Dr. Marshall is right that physicians should exercise caution and good judgement when assessing new payment plans.[1] However, the problems he ascribes to the Ontario Alternate Funding Agreement (AFA) are misleading. We would like to clarify several points:

The Ontario plan pays a lump annual sum, based on volume (other factors to modify workload are being developed), to emergency groups that sign on. This lump sum replaces fee-for-service (FFS) billings and is intended to exceed the amounts achieved through FFS, although the premium varies. There are no clauses requiring groups to divide this sum into a "salary," and each group is free to create its own distribution scheme. Thus, incentives for productivity, differentials based on training, experience, or for unsocial shifts are all a matter of discretion to the group members. This includes voting rights definitions within the group.

There are neither standards nor external monitoring of individual or group productivity.

There is no evidence from the 65 Ontario emergency departments (EDs) that have taken the AFA that productivity has been adversely affected.

FFS provides no funds for overhead. Under the AFA an individual physician's overhead is lowered as she or he does not need to submit FFS billings, while the group costs for shadow billing are at least partly offset by the AFA.

The AFA covers all non-scheduled visits to the ED. The plan was set up with the conversion of all FFS billings from the ED into the AFA pool, including the billings for patients seen by physicians other than the emergency physician on duty. It is up to the group to identify these funds and distribute them accordingly. Thus, any clawback for fees submitted by local family physicians indicates the lack of a local

agreement, and any money lost in this way did not rightly belong to the emergency group in the first case.

The AFA will be particularly attractive to ED groups that already act cohesively and where the premium over FFS is considered worthwhile. It is least attractive to sites where individuals traditionally function as autonomous practitioners and wish to stay that way. It is certainly not for everybody, but gives Ontario physicians a choice they previously did not have. It is not perfect, but 65 EDs thought it was better than the status quo. If they are at any time disappointed in the terms or effect of the AFA they can withdraw with 90 days notice. It is very hard to ascribe a hidden government agenda for this program; the motive appears obvious: to stabilize physician staffing in order to improve public service and keep EDs out of the headlines. That is a motive we can all support.

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Howard Ovens, MD
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Andrew Affleck, MD
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[The author responds:]

Caution and judgement must be exercised whenever a body of power offers something. In the matter of alternate funding plans, it is ludicrous to say our government does not have a hidden agenda. The agenda is to control costs; at whose expense is hidden.

Dreyer and colleagues state that alternate funding plans (AFPs) are intended to exceed the current FFS pool, but I ask: When was the last time a government lined up to give doctors a raise and does this take into account the large clawbacks that some EDs on AFP have seen?

AFPs are based on numbers seen (CTAS data), and if physicians are less than diligent in the administrative task of "shadow billing," it will appear that our productivity has fallen, and this will translate into more cutbacks. Dreyer and colleagues suggest there are neither standards nor external monitoring of individual or group productivity, yet all organizations need monitoring and managers to function, and the government will develop systems to monitor individual and group productivity — information that will not be used to give doctors raises.

Many centres with AFPs have opened "walk-in" clinics, allowing them to practise FFS for low-acuity patients and AFP for sicker patients. This drives ED numbers down and, as a result, the AFP pool shrinks. In an AFP, emergency physicians will become lackeys of the government — motivated to please their employer rather than their patients.

The authors suggest that "cohesive groups" will find AFPs attractive, but I believe the converse is true: groups will be more cohesive if emergency physicians work independently. The more that individuals become aware of each other's workload, productivity and income, the more likely problems are to arise. Our system is in crisis not because of supply and demand economics (i.e., FFS), but because government has exercised too much control over the "supply side" of medicine. AFPs are just more of the same. Let's not jump on the bandwagon that promises nirvana.

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An apology to Dr. Nijssen-Jordan

The National Working Group on Triage would like to recognize Dr. Cheri Nijssen-Jordan as one of the contributing members involved in the development and publication of the Canadian Paediatric Triage and Acuity Scale (PaedCTAS) guidelines.[1] Dr Nijssen-Jordan has been a valued contributor to the development of the CTAS guidelines from the inception of the National Working Group.

We apologize for the error we made in inadvertantly excluding her from the list of members in the supplement.

Michael J. Murray, MD
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National Working Group on Triage

Reference

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