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## IAEM Position Paper on the role of the Full Capacity Protocol in the management of Emergency Department overcrowding

### Executive Summary

Widespread hospital overcrowding due to inadequate and/or delayed availability of acute hospital beds is a 'clear and present' danger to public health in Ireland. The perennial lack of available in-patient hospital beds cripples the functioning of Emergency Departments (EDs) on a daily basis and the experience during the summer of 2011 confirms that the underlying problem is worsening dangerously.

This phenomenon of *exit block*, the delay in the admitted patient leaving the ED to be placed in a ward, is associated with increased death rates and poorer outcomes not only for those patients eventually transferred to an in-patient bed but also for those patients who are capable of being discharged directly from EDs. In turn, *exit block* also contributes to prolonged in-patient average lengths of stay (ALOS) and a further significant increase in hospital overcrowding, worsening the problem.

*Exit block* due to the non-availability of a ward bed is the reason that admitted patients are boarded in EDs. As a consequence, the Irish Association for Emergency Medicine strongly advocates the use of the Full Capacity Protocol to help mitigate the negative impact of ED overcrowding as part of a system-wide response to the problems of the hospital and beyond, which are uniquely manifested in the ED.

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## Introduction

Accommodation in the ED of admitted hospital patients awaiting a ward bed (boarding) is the key reason for ED overcrowding.<sup>1,2,3,4,5</sup> Admitted patients having their stay in the ED extended as a result of insufficient hospital beds is clinically unjust by compromising the care these patients receive but also the care delivered to other patients in the ED setting.<sup>6,7,8,9</sup> These inpatients are kept in a permanently lit, noisy department; denied their basic human rights of dignity and privacy; denied adequate facilities for personal hygiene and toileting and are sleep deprived. Healthy people would find this environment intolerable and it is simply inconceivable that it could be conducive to a return to health for ill and injured patients.

Irish hospitals are overcrowded and the fact that they choose to confine the overcrowding to one clinical area, the ED, is inappropriate, clinically unjust and unsafe. The result is an ED which is attempting to function in excess of its own capacity to treat patients while the remainder of the hospital functions at normal capacity. If each ward or, where they exist, an Acute Medical Admissions Unit (AMAU)/Acute Medical Unit (AMU) took one or two additional patients at times of significant ED overcrowding then the degree of crowding of the ED would be reduced, with a marked reduction in deleterious impacts on patients such as cross-infection and diminished cognitive function and mobility in the elderly patient.<sup>10,11,26</sup>

There is growing evidence that choosing to allow hospital overcrowding to only be manifested in EDs has serious repercussions for those patients who are seen in EDs and discharged directly back into the community. One recent robust multi-centred trial published this year from Canada shows that for every extra hour of mean length of stay in an ED, there is an increased seven day mortality rate and readmission to hospital rate in those who are discharged home or leave without being seen.<sup>12</sup>

The Full Capacity Protocol (FCP) is a term coined by Dr Peter Viccelio and refers to a protocol to place additional beds on wards when the functioning of the ED is about to be compromised by the level of crowding.<sup>10</sup> It has the effect of decanting excess patients from the ED to additional beds placed on wards so as to allow adequate

clinical space for the safe performance and delivery of Emergency Care to patients in the ED.<sup>13</sup>

A recently published review of the FCP by Gilligan & Quin<sup>14</sup> endorses the potential of utilising the FCP in an Irish context to end the current double standard in acute hospital care provision. They state that the problem of ED overcrowding is a symptom of a health service in crisis and that previous studies have shown that ED overcrowding is best seen as a marker of whole-of-hospital dysfunction requiring a whole-of-hospital or whole-of-system response. Their review concludes that FCP is a whole-of-hospital response and appropriate enactment of the FCP in Ireland would be real evidence of the acute hospital system delivering a patient-focused initiative proportionate to the crisis.

The fundamentals of the FCP process have, in fact, been accepted practice in the Irish healthcare system response to Major Incidents for many years. A variant of FCP was utilised in recent successful emergency responses to Major Incidents (Cork Airport plane crash, Dublin *Luas* crash), whereby in-patients boarding in receiving hospitals' EDs were immediately transferred to extra temporary in-patient beds to offset the expected acute surge of severely injured patients. Business continuity models ensured a safe, surge capacity response with no ill-effects suffered by those transferred expeditiously to extra beds on in-patient wards. Thus, a timely FCP implementation can be simply viewed as a single measured hospital-wide response to what is in effect a 'slow-burn' Major Incident, where bed capacity demand outstrips hospital-wide capacity resources in a wholly predictable fashion.

## Optimising bed availability:

Bed availability should be optimised by efficient use of existing capacity. Such efficient use should include:

1. Optimising admission avoidance strategies;
2. Opening closed beds;
3. Instigation of the HSE's Directorate of Strategy and Clinical Programme's *Acute Floor* model of care for all acute and emergency hospital admissions;
4. Ensuring clinical justice across the whole Acute Floor so that 'over-census' patients are shared equally between AMAUs/AMUs and EDs (*equal access*) and the order of transfer of admitted patients is determined in an equitable fashion with identical performance metrics (*equal exit*). This clinical justice model is practised in the NHS and is demonstrably fair to both patients and staff;
5. Increasing access to investigations and procedures based on a 7 day working week to facilitate timely investigation and management of patients;
6. Transferring appropriate patients to step down facilities e.g. Nursing Homes;
7. Instigation of supported home discharge where necessary;
8. Expediting discharges;
9. Sitting out of discharged patients awaiting transport;
10. Using Day Case beds for emergency admissions;
11. Using 5 Day wards for emergency admissions;

## **Triggers for enacting the Full Capacity Protocol:**

The FCP acts as a safety valve to provide emergency ward accommodation to acutely admitted patients when the functioning of the ED is in danger of being compromised. The decision to enact the FCP is made by the Consultant in Emergency Medicine; ED Senior Nurse; Clinical Director and Chief Executive / Hospital Manager or deputy.

Risk of compromised ED function may be indicated by the following:

- The level of occupancy of the cubicles in the ED Major Area. If 80% of ED clinical space is utilised, the Department's ability to deal with surge requirements is compromised;
- The number of admitted patients boarded in the ED;
- The numbers awaiting ED assessment;
- The numbers awaiting assessment by in-house teams;
- The number of ambulance teams being delayed from transferring patients from ambulance trolleys onto hospital trolleys. No ambulance should be delayed in the ED pending the availability of an ED trolley;
- The case load of the ED with regards to the numbers in each triage category awaiting assessment;
- The duration of stay of admitted patients in the ED. No patient should be waiting for admission to a ward bed in excess of 3 hours;
- The number of patients leaving before having a completed assessment. This should not exceed 5%;
- A total of 6 hours from time of arrival to discharge or admission is the limit to the acceptable timeframe that a patient should spend in the ED.

## **Patient Selection:**

Patients are selected for the additional ward beds on the basis that:

- They do not require Critical/Intensive Care Unit level support;
- They do not require Coronary Care Unit level support;
- They are able to walk;
- They can maintain their own airway without the need for suctioning;
- They do not have a highly contagious infectious disease (H<sub>1</sub>N<sub>1</sub>, Tuberculosis);
- They do not require non-invasive ventilation;
- They can maintain oxygen saturations in excess of 95% on a flow rate of no more than 4 litres oxygen /minute;
- They do not require telemetry;
- They do not have cardiac chest pain;
- They are able to speak, hear and see;
- They are not confused;
- They have no immediate threat to life or limb.

## **Patient allocation to wards:**

Insofar as possible, patients should be moved to additional beds on wards appropriate to their condition and where it is likely they will undergo further care. In the absence of a specialty specific ward space being available, they should move to wherever an additional ward bed space is available. Patients should be informed they are being moved to an additional bed. The patients in the ward area to where the patient is going should be informed of the fact that an additional bed is required because of the overcrowding in the ED. Additional beds should be vacated as soon as possible once the overcrowding of the ED has been addressed and the patient has been moved to an existing bed space.

Elective admissions should not be placed in the additional bed.

Patients moving to additional beds should be accompanied with all the necessary documentation relating to their acute admission.

## **A stepwise approach to enactment of the Full Capacity Protocol:**

### **Step 1**

When the Consultant in Emergency Medicine and ED Clinical Nurse Manager have made a decision that the level of overcrowding risks compromising ED function, a cascade of communication must happen.

### **Step 2**

Inform the CEO / Deputy / Hospital Manager.

### **Step 3**

Inform the Clinical Director and Bed Manager.

### **Step 4**

Ensure that all appropriate available capacity is occupied and that elective work is stopped.

### **Step 5**

Where available, use Day Case beds and 5 day beds for acute admissions.

### **Step 6**

Advise Consultants and their teams of the need for discharges to facilitate acute admissions.

### **Step 7**

Sit out discharged patients and move acute admissions into the vacated beds.

### **Step 8**

When ED function is still compromised despite the above steps, each ward will set up 2 additional beds and accept appropriate patients to those beds.

## **Discussion:**

IAEM calls for an end to the double standard of only allowing additional patients to be housed in the ED and advises that all wards should be utilised to find the much needed capacity. This reflects international opinion. The National Emergency Nurses Affiliation of Canada and Canadian Emergency Physicians have called for similar measures.<sup>15</sup> The American College of Emergency Physicians lists the FCP first among high impact solutions to address ED overcrowding.<sup>11</sup> Many hospitals internationally use 'over-census' beds on wards at times of overcrowding. Lack of available capacity continues to be an issue for acute hospitals and in this context there will be times when enactment of the FCP is necessary. Patients prefer to be an extra patient on a ward then one of many extra patients in the ED.<sup>16,17</sup> Additionally, the average length of stay for patients transferred from the ED to an additional bed on a ward is almost one day less than the average for similar patients boarded in the ED.<sup>10</sup>

Thanks to the work of researchers in Emergency Medicine, we now have accurate methods of measuring overcrowding and work load in EDs.<sup>5,17,18,19</sup> We also have evidence as to the life threatening nature of being forced to attempt to deliver emergency care in overcrowded EDs.<sup>7,8,20,21,22,23,24,25.</sup>



## **Conclusion:**

Genuine clinical justice within the healthcare system means that care provided in the ED is regarded as important as care provided on a hospital ward. The work of assessing and treating patients attending the ED is at least as important as the work being carried out on hospital wards or in outpatient departments. Delayed delivery of emergency care because the hospital has insufficient beds must not be allowed to continue. EDs must be allowed to function and they must be no more overcrowded than any other clinical area in the hospital.

The FCP is a reasonable, measured and fair approach to the significant danger created by overcrowding of EDs.<sup>13</sup> One to two additional patients on each ward at times of significant ED overcrowding is much safer and is clinically just for all patients, rather than allowing tens of additional in-patients to be retained for more than 6 hours in dangerously overcrowded, compromised EDs. Use of FCP has been proven internationally not only to be safe but to avoid the increased mortality and morbidity associated with ED overcrowding and to actually reduce hospital length of stay for this cohort of patients.

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