

Editorial

The integration of chronic care and emergency medicine

The paradigm of Emergency Medicine (EM) is to provide the right care at the right time in the right place by the right professionals. This requires a combination of key service elements to be brought together, including triage, resuscitation, mobile response units (ambulances, trauma helicopters, blue lights) and out of duty services. In Holland, integration of Emergency Medicine has been emphasised, for example between general practitioners out of duty services, emergency departments, ambulance services, emergency home care for serious ill patients at home and acute psychiatric services. Such integration, however, fails to appreciate the root causes of demand for emergency care—particularly the fact that today the majority of patients treated in emergency settings (and particularly those who have multiple emergency admissions) are the result of an acute episode related to one or more pre-existing chronic illnesses. Unlike integrated care for Emergency Medicine, the paradigm for treating chronic care patients—as formulated by Wagner [1] and Kaiser Permanente professionals [2]—stress self-management, health education, case management, and feedback systems for professionals based on modern health information technology. This form of integration is focused on primary care and hospital care, health care and social care, informal and formal care.

The two systems of integrated emergency and chronic care do not cooperate. Their paradigms are too far away from each other despite the fact that emergency medicine and chronic care are closely related. In this editorial I will give four reasons *why* integration between emergency medicine and chronic care management is important and three *how to's* to promote this integration.

1. The worse the quality of chronic care, the more the volume of emergency medicine

Chronic patients have a higher risk to consult an emergency department than other patients, especially if their chronic care is not systematically organised. Diabetes, for instance, that may be neglected can lead to a hypoglycaemia, blue lights of ambulance cars, and an acute hospital admission. In 2004, the Scottish professor Kevin Woods was keynote speaker during a congress organised by this Journal [3]. His proposition was: there is an inverse relationship between chronic

care and emergency medicine. The better the first one, the lesser the second one is used.

2. Emergency medicine is often the start of chronic care

An Emergency Department (ED) has two types of clients. The first group consists of patients with injuries such as broken hips and arms. This injury group is declining in numbers because of higher safety in traffic, at work, around the house and during sports [4]. However, there is one subgroup growing fast. That is the group with injuries caused by falling. Mostly they have hip fractures or broken legs. Their mean age in Holland is above 65 years. Their fall is often the beginning of a period of immobility and sometimes of dementia when the anaesthesia had a wrong influence on the brain. Here, emergency medicine and chronic care meet each other. The second ED group—the more prevalent—has internal symptoms such as stroke, tightness of the breath or myocardial infarct. Many of these patients show up for the first time and were unknown as a chronic patient previously. Here, the speed of emergency medicine is important to prevent long-term chronic care. For instance, if a thrombolysis is given within three hours to selected stroke patients, long stays in nursing homes are prevented.

3. Alertisation within the chronic care system prevents emergency medicine

Self management by patients is popular in a chronic care system. One of the patients' tasks is to recognise early phase symptoms of an upcoming exacerbation of their chronic condition. For instance, a worsening of their COPD, migraine or kidney stones, a new TIA, stroke or myocardial infarct. This type of self management is called 'alertisation'. A two-hour course for patients and partners to make them alert on early symptoms saves distress, ED visits and costs.

4. Telemedicine prevents emergency medicine

Sometimes chronic patients do not have the competencies to be alert about their own body. Then tele-

medicine—especially telemonitoring—may be the right alternative. In such a system the patient is called or visited on, for instance, a daily base. The calling or visiting care professional is alert on symptoms, makes changes in the medication if necessary, and prevents the use of acute services. Trappenburg, for example, evaluated a telemonitoring system for COPD patients showing how the number of emergency admissions was reduced in comparison with a control group [5].

Because of the above-mentioned interfaces between disease management and emergency medicine some integration between both is necessary. With respect for the different characteristics of each, I propose the following links:

Each chronic patient has their own individual crisis plan

What should a male heart patient with acute breast pain do on a Saturday evening? Call an ambulance dispatch centre? Or the out of duty service of the general practitioners? Or does he go to his neighbour who is a health professional? Does he on a Saturday evening, do the same as during working days between nine and five? Is the process the same for patients in a big city as for patients in rural areas? This case highlights potential problems to a patient during a crisis event. I want to underscore that each chronic patient and partner should have their own 'crisis plan' to help them manage such events better. This plan should be made in cooperation with the treating doctor (or case manager), contain a list of medication, and tells the partner what he or she already can do before a health professional arrives. I support the Canadian suggestion that all partners of heart patients are offered for free a course in resuscitation [6].

Each fallen ED patient is offered fall prevention

As I showed above, the number of falling elderly is increasing. Prevention of falls reduces the risk of recidivism. The prevention in a fall clinic is done by a geriatrician or geriatric nurse. Firstly by taking a patient history. Secondly by looking at the medication list. Thirdly some mobility supporting devices such as a walking frame can be advised. Fourthly a social alarm can be installed in the house of the patient. Each fallen

ED patient should be referred to such a fall clinic to prevent recidivism.

Telemonitoring is linked to emergency services

Sometimes I see telemonitoring systems without a link with emergency departments or out of duty services of GPs. Such systems are run by nurses, commercial agencies or homes for the elderly. Especially during evenings and weekends those systems work suboptimally because of lack of staff. That's why in the city, where I live (Utrecht), the acute nursing services are integrated with the ambulance services. If for instance a terminal patient needs acute nursing out of hours then a motor ambulance nurse shows up.

Feedback is given within the chronic care model about the use of emergency medicine

American disease management programmes try to reduce the number of visits to emergency department and the number of acute admissions [7]. This should be also a professional goal of European DM programmes. Not only because of cost efficiency, but because of the health-related quality of life increases with a lowering of the periods of exacerbations of the chronic condition. With the modern health information technology it must be possible to give feedback to professionals and managers of chronic care models about the use of emergency medicine by their patients.

On September 15–17, 2008 the International Network of Integrated Care (INIC) organises a congress on integrated primary health care in Southampton. We do that together with the International Forum of Primary Care and the University of Southampton. For the first time in our history of eight years, part of the conference will be focused on *integrated emergency services*. Please, visit the website www.integratedcarenetwork.org, subscribe to the conference and discuss with us the integration of emergency medicine and chronic care.

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