

## 20 percent of emergency department visits preventable, of which half are cardiovascular disease

October 17 2016

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Twenty percent of emergency department (ED) visits are preventable, of which half are for cardiovascular disease, reveals research presented today at Acute Cardiovascular Care 2016.

"We face an increasing phenomenon of crowding in emergency departments," said last author Professor Martin Möckel, medical director of Emergency Medical Services at Charité - University Medicine Berlin, Germany. "Acute care of patients with preventable conditions is competing with real emergencies like stroke and [myocardial infarction](#)."

The term "Ambulatory Care Sensitive Conditions" (ACSCs) describes chronic conditions in which ED visits and hospital admissions could be prevented with better primary care. The main cardiovascular ACSCs are heart failure, hypertension and angina pectoris (chest pain).

This study investigated the prevalence of cardiovascular ACSCs in 34 444 patients attending two EDs in Berlin during one year. Patients received one of 19 diagnoses using the International Classification of Diseases (ICD)-10 coding. In-hospital mortality and use of intensive care beds was examined in patients with cardiovascular ACSCs. The results were stratified for inpatients (admitted to hospital for further care) and outpatients (directly discharged after treatment or diagnosis in the ED).

The researchers found that 21.9% of all patients admitted to hospital from the ED had an ACSC. Of those, 52% had angina pectoris, congestive heart failure or hypertension. In patients directly discharged from the ED, 20.5% had ACSCs, of which 35% were cardiovascular.

Professor Möckel said: "Half of the ACSCs were cardiovascular in those who were admitted for further inpatient care. In those who were treated as outpatients, the relative share of cardiovascular ACSCs was lower. This suggests that cardiovascular symptoms and diseases are taken seriously and patients are easily admitted to the hospital from the emergency department."

In-hospital mortality for patients with any type of ASCS was 4.7%, but this dropped to 2.3% for those with cardiovascular ACSCs. Looking specifically at cardiovascular ACSCs, in-hospital mortality was 8.6% for congestive heart failure, 0.3% for [angina pectoris](#) and 0% for hypertension.

"Patients with chest pain are easily admitted but have a low risk of death due to the intensive structured treatment they receive in chest pain units, with swift access to monitoring units and intensive care," said Professor Möckel. "On the other hand, acute congestive heart failure is often a terminal condition with a high mortality and patients have little access to specialised care in the community."

"Our results suggest that 20% of ED visits are preventable and half of those are from [cardiovascular disease](#)," said Professor Möckel. "EDs are bursting at the seams and we could reduce crowding with more specialised and accessible outpatient care."

Patients treated in the ED who have no access to specialised chronic care in the community often return to the ED within a month with the same condition. This could be avoided by discharging patients from the ED

with a treatment plan, which includes an appointment to see a specialist.

"Many patients are very ill and find it difficult to organise appointments - they might call once but the line is busy and they are not able to try again," said Professor Möckel. "Emergency care doctors should be able to give them a concrete plan when they leave the hospital outlining what to do in the next five days or so."

To prevent worsening symptoms and rehospitalisation for heart failure, specialised centres are needed in the community that are also open in the evening and at weekends. Telemedicine can be used to monitor patients at home and intervene early when symptoms deteriorate. Patients with advanced heart failure can be taught to adjust their diuretic dose if their ankles swell and they gain weight.

Professor Möckel concluded: "There is clearly a need to take some of the pressure off overstretched emergency departments. The next step in our research is to identify specific interventions that could improve care for patients with ACSCs and keep them out of hospital."

**More information:** The abstract 'Prevalence of cardiovascular ambulatory care sensitive conditions in the emergency department' will be presented during the Rapid Fire Session, 16 October 08:30 to 10:00, Coimbra room.

Provided by European Society of Cardiology

Citation: 20 percent of emergency department visits preventable, of which half are cardiovascular disease (2016, October 17) retrieved 7 July 2024 from <https://medicalxpress.com/news/2016-10-percent-emergency-department-cardiovascular-disease.html>

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