

Copenhagen's central hospital Rigshospitalet
Copenhagen Hospital Corporation

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Memorandum concerning: Possibility of creating a "green wave" for emergency vehicles

Seen from a professional prehospital treatment point of view, it is most desirable that primary ambulances and doctor ambulances arrive as quickly as possible to the distressed. In urban areas, breaking at red traffic lights is a major delaying factor. There are no scientific studies showing how much time a "green wave" can save.

For patients suffering time critical illnesses like heart failure and suffocation, even 30-60 seconds saved will be of vital importance to the possibility of the patient recovering fully.

In 2004, the personnel at Copenhagen Mobile Intensive Care Unit and Copenhagen Fire Department initiated resuscitation of 342 patients. Under the existing circumstances, it was only possible to resuscitate 87. It is very likely that it could be possible to resuscitate a larger percentage, if the turn-out time for primary ambulances and doctor ambulances can be reduced, and perhaps will especially the chance of the patient's complete mental and physical recovery be increased.

Also patients without manifested failure of the vital functions such as respiration and circulation will benefit from a quicker initiation of making a diagnosis and treatment by shortening the period where the patient for instance suffers great pain in connection with coronary thrombosis or experiences suffocation in connection with a severe attack of asthma.

In cases where doctors or ambulance personnel decide to complete the transport with blue lights and the siren on after stabilizing the patient at the scene of the accident, transport will be more quiet and safe for the patients.

Today, transport is the result of a compromise between the comfort of patients and personnel during driving and a decision about the urgency of the transport. By implementing a "green wave", all parties will experience the expected quieter transport during turn-out to the hospital as being safer, and the severely injured patient with numerous fractures will experience it as less painful.

Though ambulances and doctor ambulances are only involved in few accidents in proportion to the high number of kilometres they drive, during the latest years, there have been several accidents where the emergency vehicle was hit by another vehicle – resulting in permanent injury in at least one of the cases. Therefore, it is desirable to reduce this risk with every available means. It appears as project "green wave" can contribute to increasing safety and reducing risk. To this must be added the number of accidents happening among other road users as a consequence of sudden breaking in connection with turn-out driving at traffic lights which without doubt cannot quite be ignored.

Furthermore, it is an advantage that the project fundamentally is based on existing well-tested technology, which is built well into the ambulance services.

It appears as if project "green wave" is a step forward for both patients and personnel with advantages which are so obvious that nobody have been able to see them until now.

Yours sincerely

Soeren Loumann Nielsen
Consultant
Copenhagen Mobile Intensive Care Unit

Henning Brinkenfeldt
Medical Director
Copenhagen and Frederiksberg
Fire Departments