

Under review

Mise à jour d'un guide d'exercice

Transfert interétablissement et présence médicale

Source : Direction générale

Étant donné l'évolution de la pratique dans de nombreux domaines et à la suite d'une consultation de nombreux médecins et d'autres instances, des modifications ont été apportées au guide d'exercice

Complémentarité des services d'urgence : prise en charge des patients, publié en 1998.

Les modifications apportées au guide sur la complémentarité des services d'urgence concernent plus particulièrement :

- la section 5, intitulée « Critères à respecter au cours du transfert interétablissement » ;
- la section 7, intitulée « Conditions exigeant la présence médicale au cours d'un transfert interétablissement ».

Mise à jour du guide d'exercice

Complémentarité dans les services d'urgence : prise en charge des patients

5. Critères à respecter au cours du transfert interétablissement

Dans l'énumération des critères recommandés pour procéder au transfert d'un patient, ajouter :

Le professionnel accompagnateur (infirmière ou inhalothérapeute) doit être formé et compétent ; l'établissement doit faire en sorte qu'il lui soit possible de communiquer en tout temps avec le médecin.

7. Conditions exigeant la présence médicale au cours d'un transfert interétablissement

Dans l'énumération qui mentionne les divers types de patients devant bénéficier d'un accompagnement médical pendant un transfert, remplacer le troisième point d'énumération « tout malade avec infarctus myocardique aigu » par :

3. tout patient en infarctus du myocarde...
 - en choc ou présentant une hypotension (TA systolique < 90 mm Hg) avec risque d'instabilité ;
 - présentant une bradycardie sévère symptomatique (< 45/minute) ou un bloc AV du 2^e ou 3^e degré ;
 - ayant présenté une arythmie ventriculaire maligne (tachycardie ventriculaire soutenue, tachycardie polymorphe ou fibrillation ventriculaire) ;
 - présentant des complications mécaniques (CIV aiguë, rupture de muscle papillaire avec insuffisance mitrale sévère, etc.).

COMPLEMENTARITY IN EMERGENCY SERVICES: PATIENT MANAGEMENT

DEFINITION OF MEDICAL SERVICES

EMERGENCY DEPARTMENT CATEGORIZATION

MOST APPROPRIATE FACILITY SELECTION

PREREQUISITES FOR ASSUMPTION OF DEFINITIVE PATIENT CARE

CRITERIA FOR INTER-FACILITY TRANSFER

**PATIENT STABILIZATION CRITERIA
BEFORE INTER-FACILITY TRANSFER**

**CONDITIONS REQUIRING THE PRESENCE OF A
PHYSICIAN DURING INTER-FACILITY TRANSFER**

BIBLIOGRAPHY

INTRODUCTION

The reorganization of health care delivery in Québec has led to many major changes in health care establishments, particularly those whose role was changed. These changes have affected their emergency departments, particularly with respect to medical resources and technological support. Despite the transformation in emergency departments, patients' consultation habits remained essentially the same. Also, the prehospital system has not always kept in step with the changes when orienting patients in its care.

Given this situation, the Collège des médecins du Québec thought it timely to publish this guide to promote the development of an integrated network of emergency services within health care establishments. Thus, the Collège is proposing criteria for determining where patients should be directed by the prehospital system, as well as a

classification of emergency services according to their professional and technical resources. It also sets out rules to be followed by every emergency department when assuming patient care. Finally, it establishes standards for transferring patients to another facility's emergency department and stipulates when a physician should accompany patients during the transfer.

The Collège wishes to point out that cogent medical literature on the subject is limited. It also wants to mention that the recommendations in this guide have nothing whatsoever to do with the organization of emergency medical care delivery in a given region, although it is conscious that its recommendations will influence it. The recommendations apply to emergency departments, and not to first-line on-call services that might be organized in a given region.

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1. DEFINITION OF MEDICAL SERVICES

Consultations given as part of a health establishment's emergency services should be classified mainly as secondary and tertiary services.

Consultations given as part of a health establishment's emergency services should be classified mainly as secondary and tertiary services. An emergency department may sometimes offer primary services, but in most cases it does so for reasons of efficiency and availability (for example, at night or on weekends).

To properly define the types of care corresponding to each level, we have selected the Conseil médical du Québec's definition used in its document on establishing a hierarchy of medical services. It conforms to the definition of primary, secondary and tertiary health care proposed by the World Health Organization in the report of the International Conference on Primary Health Care.

PRIMARY MEDICAL SERVICES

These are common everyday health care services that rely on a light infrastructure of diagnostic and therapeutic means to resolve most of the populations's common health problems and concerns.

This level of care does not require an establishment-type emergency department. Nor does it necessitate observation or hospitalization.

SECONDARY MEDICAL SERVICES

These services rely on more complex, widely used, diagnostic and therapeutic technology to resolve more complex health problems. Secondary services are intended for people with problems that cannot be resolved by primary care. In emergency departments, secondary services are "one-time" services.

TERTIARY MEDICAL SERVICES

These are ultraspecialized medical services that rely on complex diagnostic and therapeutic technology not in widespread use and are intended for people presenting with very complex or rare health problems. These services are only provided at a supraregional or provincial level, in ultraspecialized hospital centres. They are "one-time" services offered in these emergency departments.

2. EMERGENCY DEPARTMENT CATEGORIZATION

The primary mission of an emergency department is to immediately and continuously provide the following services to patients whose condition requires them: triage, initial assessment, stabilization and start of treatment, all of which are aimed at stabilizing an urgent medical or surgical condition and making an enlightened decision as to where to direct the patient.

To accomplish this mission, all establishment emergency rooms must have:

- the appropriate physical, material and professional resources to provide secondary or tertiary medical services;
- medical resources present on the site 24 hours a day, seven days a week;
- medical resources available within less than 30 minutes to ensure the emergency transfer of a patient to another hospital centre when a physician must accompany the patient;
- the capability of observing a patient on a stretcher for an eight-hour period and/or hospitalizing him.

To make it easier to direct patients and have their care managed by the appropriate emergency department, the Collège has categorized these services, using the traumatology network's classification as a guide. It is based mainly on the available medical resources. Here is a description of these categories.

STABILIZATION CENTRES

These emergency departments offer continuous medical services, generally provided by general practitioners.

These establishments have the diagnostic and therapeutic resources to stabilize and take over management of conditions that are more complex than those treated by primary medical services. The medical team on the site ensures access to care 24 hours a day, seven days a week. Medical resources, available within 30 minutes, must ensure that the patient being urgently transferred to another hospital centre is accompanied by a physician, when needed.

PRIMARY CENTRES

These emergency departments provide continuous medical services, generally provided by general practitioners. General surgery and anesthesia-resuscitation services ensure constant support.

These establishments must have at least one piece of complex and widely used technology for diagnosis and treatment, as well as a number of hospital beds. The medical team on the site ensures access to care 24 hours a day, seven days a week. Resources are available within 30 minutes to ensure that a patient who must be urgently transferred to a hospital centre providing a higher level of care is accompanied by a physician, when necessary. General surgery and anesthesia-resuscitation services are available 24 hours a day, seven days a week, within less than 30 minutes. These centres must also have an intensive care unit or its equivalent.

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The medical team on the site ensures access to care 24 hours a day, seven days a week.

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SECONDARY CENTRES

These emergency departments offer continuous medical services, generally provided by general practitioners who have back-up support from specialists in the appropriate medical and surgical disciplines. These establishments must have at least one piece of complex and widely used technology for diagnosis and treatment. The medical team on the site ensures access to care 24 hours a day, seven days a week. Resources must be available within 30 minutes to ensure that a patient who must be urgently transferred to another hospital centre is accompanied by a physician, when necessary. Services providing anesthesia-resuscitation, radiology, internal medicine and certain medical specialties, general surgery and certain surgical specialties, notably orthopedics if the centre is a designated centre in the traumatology network, must be available 24 hours a day, seven days a week within less than 30 minutes. The same should apply to all other specialties offered in the establishment. These centres must also have an intensive care unit.

TERTIARY CENTRES

These emergency departments offer continuous medical services, generally provided by general practitioners, who have back-up support from medical specialists and often the ultraspecialized physicians. These establishments must have the complex, widely used and less widely used technology for diagnosis and treatment. The medical team on the site ensures access to care 24 hours a day, seven days a week. Resources must be available within 30 minutes to ensure that a patient who must be urgently transferred to another hospital centre is accompanied by a physician, when necessary. Services in

anesthesia-resuscitation, radiology, internal medicine and certain medical specialties, surgery and certain surgical specialties, notably orthopedics if the centre is a designated centre in the traumatology network, must be available 24 hours a day, seven days a week within less than 30 minutes. The same should apply to all other specialties offered in the establishment. There must be an intensive care unit.

SINGLE VOCATION CENTRES

These emergency services offer specialized and ultraspecialized medical services centred around the facility's mission. These services are generally provided by general practitioners who are given back-up support by specialists. These establishments must have the advanced, widely used and less widely used (if applicable) technology for diagnosis and treatment. Resources must be available within 30 minutes to ensure that a patient who must be urgently transferred to another hospital centre is accompanied by a physician, when necessary. Services in the medical and surgical specialties targeted by its mission must be available 24 hours a day, seven days of week within a time limit that meets the particular needs of patients. These centres receive ambulances in the context of inter-facility transfers, primary transportation of patients followed and treated in the centre, or according to a master plan established by the regional board concerned.

3. MOST APPROPRIATE FACILITY SELECTION

Patients managed by the prehospital system are either trauma patients or patients with an acute medical and/or surgical condition (all acute medical conditions other than trauma). The recommendations on criteria for directing patients in the prehospital system apply therefore to trauma as well as to medical and other surgical emergencies.

TRAUMATOLOGY

Suggestions for directing patients take into account the recommendations of the advisory group on traumatology.

All trauma patients managed by the prehospital system with a PTI of less than 4 and no history of high-velocity impact must be transported to a primary or higher level centre, unless transport requires more than 30 minutes. In the latter circumstances, the trauma patient must be transported to the nearest centre, even if it is a stabilization centre (see Table 1 and Algorithm 1 on pages 6 and 7).

The prehospital system should direct all trauma patients with a prehospital trauma index (PTI) of 4 and over or evidence of high-velocity impact via the corridors set up by the traumatology network. In the case of highly unstable patients presenting a non-cumulative score of 5 in one of the spheres of respiration, pulse or blood pressure on the prehospital trauma index, the ambulance should go to the nearest emergency department for stabilization, whether the establishment is designated as a trauma centre in the traumatology network or not. The stabilization period should last 10 min-

utes or thereabouts, and the patient must not be moved from the ambulance stretcher.

All trauma patients under 16, managed by the prehospital system, must be taken to a secondary or higher level centre unless transportation to it requires more than 30 minutes. In the latter case, the pediatric trauma patient must be taken to the nearest centre, even if it is a stabilization centre. The pediatric trauma patient presenting with an altered state of consciousness, difficult breathing or unstable vital signs, as defined below, must be taken to the nearest centre.

UNSTABLE VITAL SIGNS IN THE TRAUMA PATIENT UNDER 16

Here are the unstable vital signs criteria for a patient under 16:

- respirations of less than 10 or more than 60 per minute;
- systolic blood pressure below 70, plus twice the age in years;
- heart rate:
 - if under age 2, below 100 or above 160 per minute,
 - if between age 2 and 10, below 80 or above 150 per minute,
 - if over age 10, below 60 or above 140 per minute.

Note that, to be part of the traumatology network, an establishment must have been designated as such by the Minister of Health and Social Services following the recommendation of the advisory group on the subject.

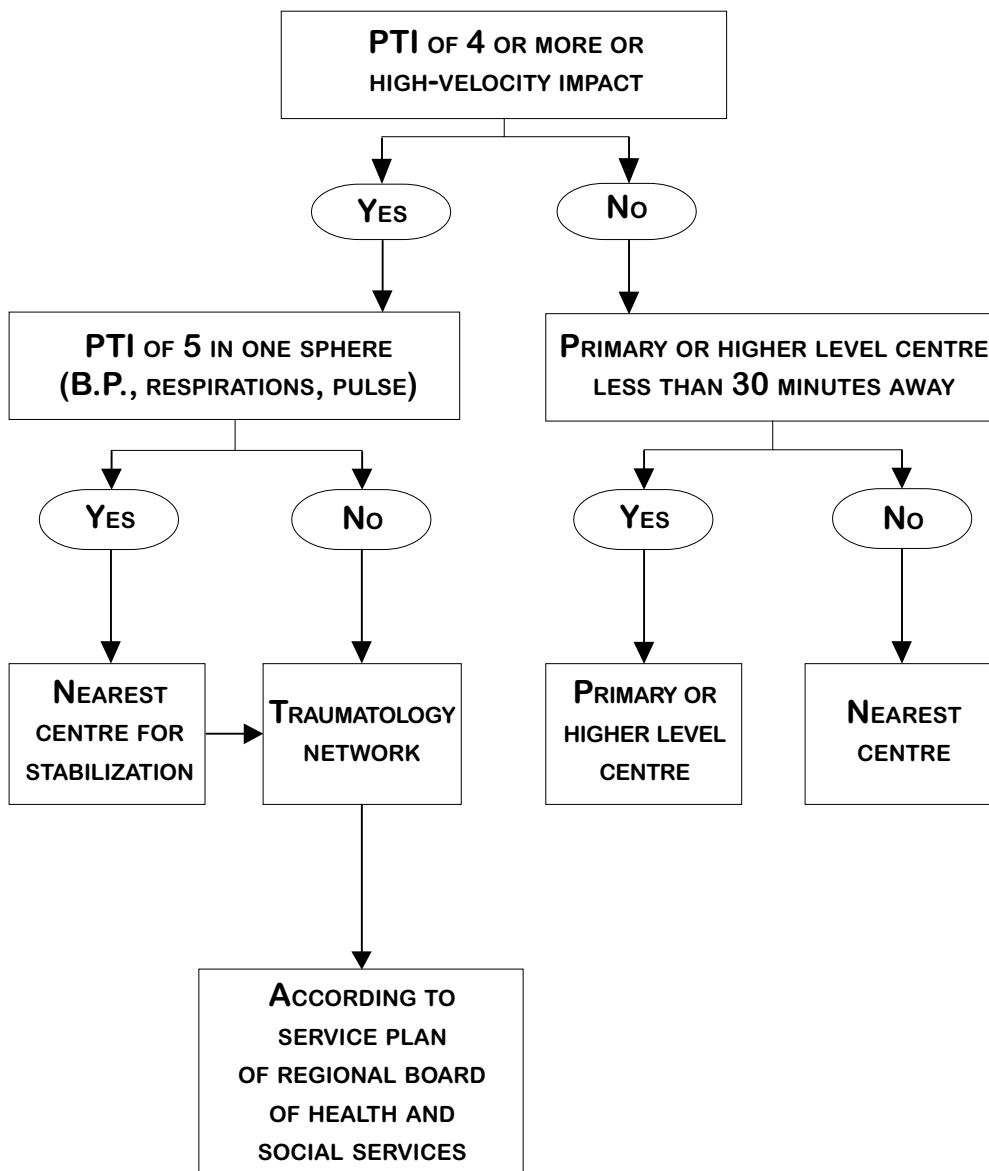
All trauma patients managed by the prehospital system with a PTI of less than 4 and no history of high-velocity impact must be transported to a primary or higher level centre, unless transport requires more than 30 minutes.

TABLE 1**PREHOSPITAL INDEX FOR TRAUMA PATIENTS (PTI)**

TRANSPORT TO A TRAUMATOLOGY NETWORK CENTRE IF INDEX IS 4 OR MORE	
<i>Systolic blood pressure</i>	<i>Points</i>
> 100	0
86-100	1
75-85	2
≤ 74 or lack of radial or carotid pulse	5
<i>Pulse</i>	
51-119	0
> 120	3
50	5
<i>Respirations</i>	
Normal frequency	0
Difficult	3
< 8/minute or intubated	5
<i>Penetrating injury</i> (head, neck, chest, abdomen)	
Yes	4
No	0
<i>Level of consciousness</i>	
A. "Alert": the victim is alert	0
V. "Verbal": the victim responds to verbal stimuli	3
P. "Pain": the victim responds to pain stimuli	5
U. "Unresponsive": the victim is unconscious	5
TRANSPORT TO A TRAUMA NETWORK CENTRE IF THERE IS EVIDENCE OF HIGH-VELOCITY IMPACT	
<i>Examples of high-velocity impact</i>	
<ul style="list-style-type: none"> · Fall from more than 7 metres · Other occupant(s) dead · Thrown from vehicle · Deformed passenger compartment · Intrusion into passenger compartment · Pedestrian/cyclist hit at more than 35 kilometres/hour · Others 	

ALGORITHM 1

TRANSPORT TO HOSPITAL OF TRAUMA PATIENT



For all medical and/or surgical emergencies other than trauma, patients managed by the prehospital system must be taken to a primary or higher level centre, unless that centre is situated more than 30 minutes away.

MEDICAL AND/OR SURGICAL EMERGENCIES

For all medical and/or surgical emergencies other than trauma, patients managed by the prehospital system must be taken to a primary or higher level centre, unless that centre is situated more than 30 minutes away. (see Algorithm 2 on page 9). In these circumstances, patients must be taken to the nearest centre for stabilization and immediate assessment. The decision to redirect the patient must be made within 10 minutes if the condition cannot be treated in the establishment, thus allowing for stabilization of the patient before leaving. The patient must not be moved from the ambulance stretcher before the medical decision on whether or not to treat the patient's condition in that centre has been made.

Patients presenting with difficult or shallow respiration, a pulse of 45 or less, blood pressure under 85, lack of response to verbal stimuli or the possibility of anaphylactic shock must be taken to the nearest emergency facility, even if it is a stabilization centre and there is a primary or higher level centre less than 30 minutes away. In these situations, the patient will be stabilized as quickly as possible and then directed to an appropriate centre, if necessary.

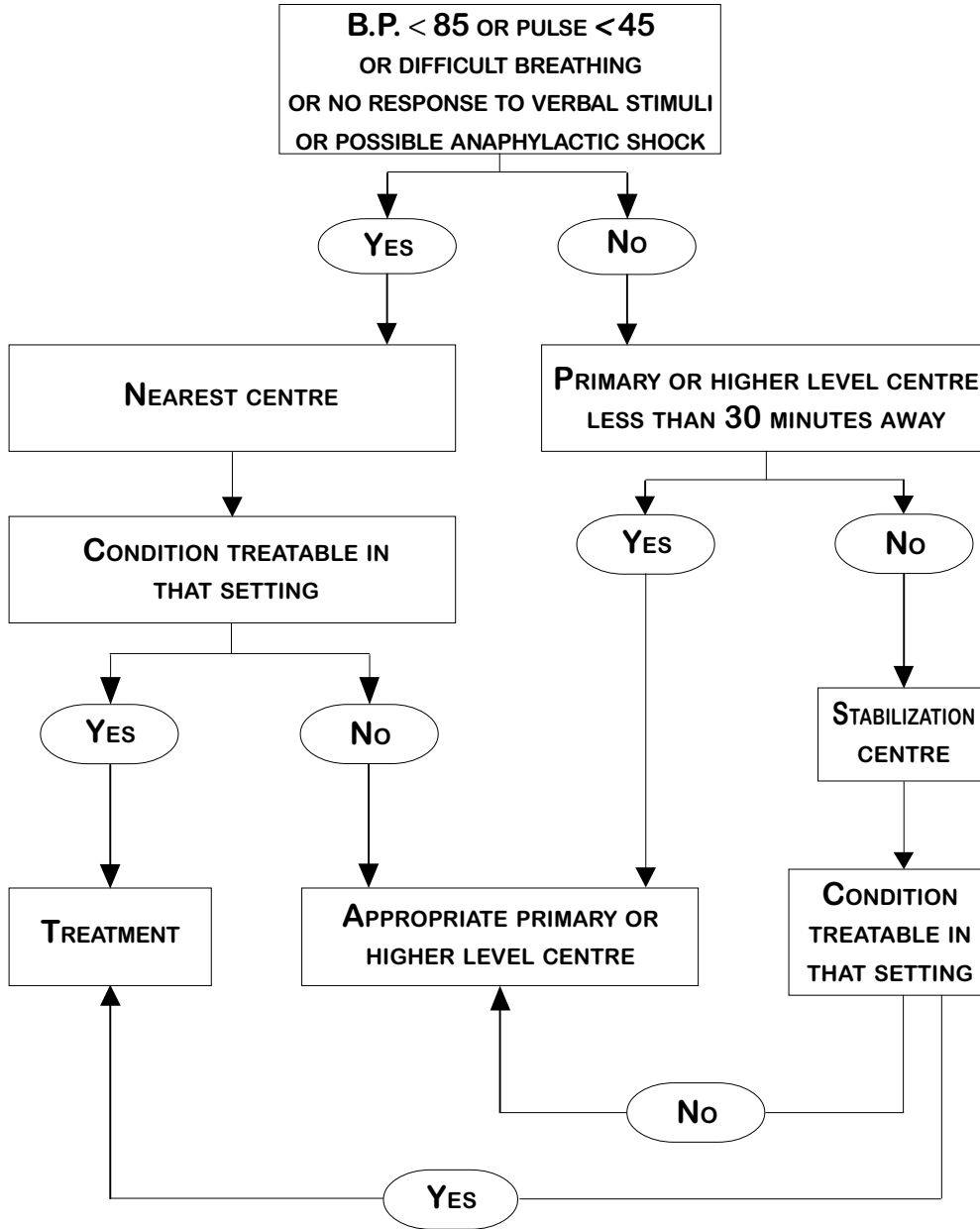
All patients presenting with chest pain should be taken to the nearest stabilization centre, provided the centre has a fibrinolysis protocol, is situated more than 30 minutes away from a primary or higher level centre, and can provide patient assessment by a physician. Fibrinolysis, if indicated, must be administered within 30 minutes of the patient's arrival at the centre.

The patient under 16, managed by the prehospital system, should be taken to a secondary or higher level centre, unless that centre is more than 30 minutes away. In such case, the patient must be taken to the nearest centre. The patient under 16 presenting with difficult breathing, an altered state of consciousness, unstable vital signs or a possible anaphylactic reaction, as defined on page 8, must be taken to the nearest centre.

The patient must remain on the ambulance stretcher in the stabilization centre, unless his definitive care is taken over by the medical team on the site.

ALGORITHM 2

EMERGENCY MEDICAL-SURGICAL CONDITIONS



4. PREREQUISITES FOR ASSUMPTION OF DEFINITIVE PATIENT CARE

If these principles cannot be observed, the physician must immediately take the necessary measures to transfer the patient to an appropriate centre.

A physician may assume the management of a patient in an emergency room if the following principles are observed:

- the centre has the resources to appropriately evaluate the patient and establish a diagnosis;
- the physician can appropriately treat the problem in the centre;
- the treatment is likely to improve the patient's condition so that he can leave the centre on foot after less than eight hours of observation, when there is no hospital bed.

If these principles cannot be observed, the physician must immediately take the necessary measures to transfer the patient to an appropriate centre.

5. CRITERIA FOR INTER-FACILITY TRANSFER

Stabilization hospital centres and primary and secondary centres should make agreements on transfer protocols with higher level centres.

The criteria recommended for patient transfer are modelled after those adopted by the American College of Emergency Physicians. They are as follows:

- the patient must be transferred to a facility suited to his medical needs;
- a physician or person in charge at the receiving centre must have agreed to the patient transfer before the transfer was undertaken, unless there is already an agreement concluded between the establishments involved;
- the medical personnel in the referring centre and receiving centre must communicate with one another so that clinical information may be exchanged, if possible, before the transfer. Ideally, the physicians in charge of each centre should communicate with one another directly;

- an appropriate medical summary, including ECG tracings, x-rays and the results of diagnostic tests, if applicable, must be sent with the patient;
- the patient must be transferred with the personnel and resuscitation equipment appropriate to his condition;
- a transfer may not be refused if it is indicated and if the receiving centre has the resources to care for the patient.

Stabilization hospital centres and primary and secondary centres should make agreements on transfer protocols with higher level centres. The setting up of transfer corridors would accelerate these transfers.

6. PATIENT STABILIZATION CRITERIA BEFORE INTER-FACILITY TRANSFER

When a patient's emergency medical and/or surgical condition threatens one of his organs or his life, the transfer must be made after stabilization. Stabilization includes an appropriate assessment and the start of treatment so that, in all reasonable probability, the patient's transfer will not result in his death, or the loss or serious impairment of his functions or organs. Patient stabilization before transfer must therefore include the following, when it is required:

- the maintenance of patent airways;
- hemorrhage control;
- appropriate immobilization of the patient's body or limbs;
- establishment of an open vein for the administration of intravenous solution or blood;
- administration of the necessary medication;
- the necessary measures to ensure optimum stability during the transfer.

Stabilization includes an appropriate assessment and the start of treatment so that, in all reasonable probability, the patient's transfer will not result in his death, or the loss or serious impairment of his functions or organs.

7. CONDITIONS REQUIRING THE PRESENCE OF A PHYSICIAN DURING INTER-FACILITY TRANSFER

Certain patients presenting with acute medical, surgical or trauma conditions may need to be accompanied by a physician during transfer. The accompanying medical personnel from the referring centre to the receiving centre should be available within 30 minutes and be continuously present during the transfer. The following patients should be accompanied:

1. all patients who presented with a cardiopulmonary arrest during their stay in the referring centre's emergency room before the transfer;
2. all patients with unstable vital or neurological signs;
 - severe respiratory distress:
 - respirations of > 32/minute or < 8/minute,
 - or oxygen saturation < 90%,
 - or cyanosis;
3. all patients with acute myocardial infarction;
4. all intubated patients at risk of complications during transfer;
5. all women about to deliver;
6. all patients with an illness that carries a risk of death or serious impairment of functions or organs during transfer;
7. all patients under 16 presenting one of the preceding criteria or unstable vital signs, as defined on page 5.

The accompanying medical personnel from the referring centre to the receiving centre should be available within 30 minutes and be continuously present during the transfer.

CONCLUSION

The physician in an emergency department should not take over management of a patient unless the centre has the necessary resources to provide appropriate patient care.

Many establishments have seen their professional, physical and technical resources affected by the reorganization of health care delivery. Some of these, in keeping with their new status, must change the way their emergency department approaches the management of patients.

Consequently, the physician in an emergency department should not take over management of a patient unless the centre has the necessary resources to provide appropriate patient care. If this principle cannot be adhered to, he must immediately take the necessary measures to transfer the patient to a centre with the appropriate level of care.

Table 2 on page 13 presents a summary of the descriptive criteria for each category of centre and the conditions for the management of patients.

TABLE 2

EMERGENCY MEDICAL-SURGICAL CONDITIONS

SUMMARY OF CATEGORIES OF CENTRES AND RELATED MEDICAL CONDITIONS

CONDITONS	STABILIZATION CENTRES	PRIMARY CENTRES	SECONDARY CENTRES	TERTIARY CENTRES	SINGLE VOCATION CENTRES
Establishment	Health centres, nursing homes and long-term care centres with short-term care component	General and specialized care hospital centres	General and specialized care hospital centres	General and specialized care hospital centres and university hospital centres	University institutes, psychiatric care hospital centres
Physician on site 24 hours/24, 7 days/7	Yes	Yes	Yes	Yes	Yes
Physician available to accompany during transfer	Yes	Yes	Yes	Yes	Yes
Medical specialties available within 30 minutes	None	Anesthesia-resuscitation, general surgery	Anesthesia-resuscitation, general surgery, radiology, orthopedics if centre is designated, internal medicine and/or medical specialties, other specialties offered in establishment	Anesthesia-resuscitation, general surgery, radiology, orthopedics and neurosurgery, if centre is designated, internal medicine and/or medical specialties, other specialties offered in establishment	According to establishment's vocation
Observation possible in emergency	Yes	Yes	Yes	Yes	Yes
Short-term beds in establishment	No	Yes	Yes	Yes	Yes
Laboratory testing on site	Minimum list of tests offered in an emergency	All tests required in an emergency	All tests required in an emergency	All tests required in an emergency	In keeping with establishment's vocation
X-ray equipment	Simple	Heavy and complex, but widely used	Heavy and complex, but widely used	Heavy and complex, but widely used	According to establishment's vocation
Ambulance reception	No, unless: - higher level emergency is more than 30 minutes away - unstable patient	Yes	Yes	Yes	Yes: - if inter-facility transfer - if patient is followed in the centre for the condition for which he is being transferred - according to regional master plan
Acute medical-surgical conditions	Transfer after stabilization, unless evaluation and treatment of condition are possible on the site	Treatment on site if evaluation and treatment of the condition are possible on the site	Management of all conditions related to available specialties	Management of all conditions related to available specialties	According to establishment's vocation
Intensive care unit in establishment or equivalent	No	Yes	Yes	Yes	According to establishment's vocation

APPENDIX 1

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