

- food service for patients and staff, as well as cleaning and safety of buildings,
- hospital waste management,
- establishing and implementing a maintenance plan of medical equipment, technical facilities, buildings and fleet,
- Information management.

The *service d'accueil et d'admission* "reception and admission service" is responsible for various activities such as reception and directing patients, organizing patient admissions and discharge, managing patient movements inside the hospital, organizing and managing patient records, etc. The *pôle des affaires médicales* "medical affairs division" and the *pôle des soins infirmiers* "nursing care division" are involved in scheduling and resource management activities.

Table 2. Management of hospital logistics activities in Moroccan hospitals

Departments	Medical Affairs Division	Nursing Care Division	Administrative Affairs Division	Medical Departments	Pharmacy Service	Reception and Admission Service
Scheduling	✓	✓		✓		
Procurement			✓			
Distribution			✓			
Pharmacy	✓		✓		✓	
Catering/ Food			✓			
Laundry			✓			
Hygiene			✓			
Waste management			✓			
Maintenance			✓			
Reception service						✓
Patient flow						✓
Telecommunication			✓			
Information system management						✓
Stock management			✓			
Mail service/ files archiving	✓		✓			✓
Safety and security			✓			

Discussion and conclusion

The basic role of hospitals is to provide healthcare to patients. To this end, there are numerous ancillary activities that must be taken into account. Maybe most of them are invisible for the patient but they have a significant impact on the way patients experience a visit to hospital (Dobrzańska, Dobrzański and Śmieszek, 2013). A large number of these activities belong to the field of hospital logistics, which includes purchasing, transportation, catering, etc. The responsibility of such activities tends to be divided between different departments. Even if hospitals in general have a dedicated department to handle and deal with logistics activities, they still fragmented between at least two or more departments. For example, in some cases, it was found that up to five separate teams of people were involved in stock replenishment activities and the associated processes (Kidd, 2002). Also, in other cases the responsibility for transport activities is divided between different departments, this lead to the multiplication of efforts without being able to take advantage of the synergies between the different transportation circuits and without having the overall picture of the costs of such practices (Beaulieu *et al.*, 2014).

In most cases, drugs management is ensured by the department of pharmacy, which is responsible for their negotiation, purchasing, distribution, storing and preparing the quantities of pharmaceuticals products as requested by the care units (Dacosta-Claro and Lapierre, 2003; Dacosta-claro, 2002; Beaulieu and Landry, 2002). This because the regulations require that the control of drugs must be carried out by a graduate of the pharmacy (Sampieri-Teissier, 2002) (Burnette, 1994).

Other than the management of logistics activities by hospital internal departments, service providers may also be called to take part in it (figure 5). Outsourcing logistics activities is an option that may be adopted by hospitals, where a specialist from the private sector is entrusted with managing and executing, wholly or partly, some activities such as catering, laundry, cleaning, etc. (Benanteur, 2004; Kriegel *et al.*, 2013; Azzi *et al.*, 2013; Marriott *et al.*, 1998). As an example, Granlund and Wiktorsson (2013), in their study on a Swedish hospital, state that all transportation activities (transports of waste material, laundry, food, pharmaceuticals and patients)

are ensured by a transportation department, working as an external part, from which the hospital buys services. In the Moroccan context, the outsourcing of logistics activities has become a managerial approach. It is noted that in some cases, hospitals outsource hotel activities such as cleaning, laundry, security service and catering (Kherbach and El Alami El Fellousse, 2007). In this sense, Kriegel *et al.*, (2013) argue that the range of services supplied externally will increase, and more highly ranked hospital logistic fields (e.g. pharmaceuticals, sterile goods) would be outsourced.

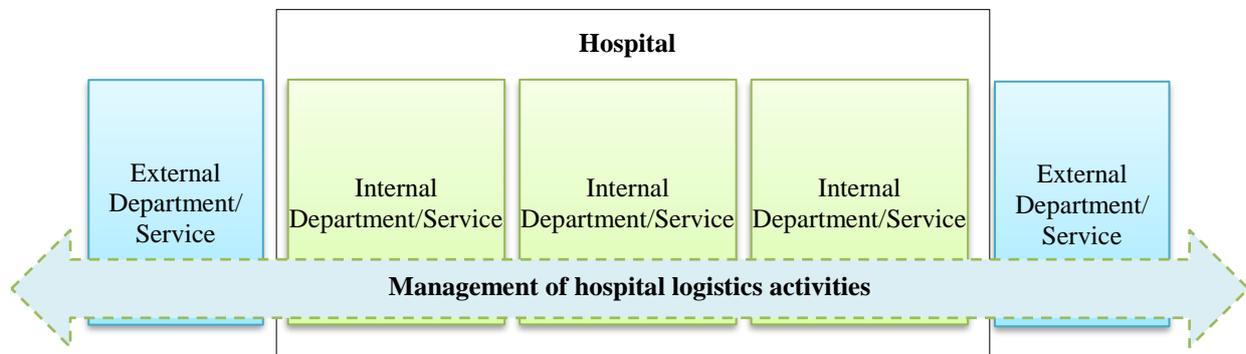


Figure 5. Departments involved in the management of hospital logistics activities

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Biographies

Fouad Jawab is a professor of higher education at Fez Higher School of Technology (EST) in Morocco. He is member of the Research Laboratory of Manufacturing, Energy and Sustainable Development and Director of the Research Laboratory in International Management, Decision Making and Logistics. He has headed the Department of Management Science and Technology and directed the Logistics Management and Transportation training program at the EST, and is currently coordinating the "LOGISTICS" professional license. Hospital logistics is one of its main areas of research interest.

Youness Frici received the engineering degree in industrial engineering from the National School of Applied Sciences in 2013. He joined the Ministry of Industry, Investment, Trade and Digital Economy since July 2014. He is, in parallel, a PhD student in the Laboratory of Manufacturing, Energy and Sustainable Development at Sidi Mohamed Ben Abdellah University, Fez, Morocco. His research interests are mainly focused on logistics and in particular hospital logistics.

Said Boutahari is a research professor (Grade professor of higher education) in the Department of Mechanical Engineering, Production and Industrial Maintenance at Fez higher School of Technology. He is also member of the research Laboratory of Manufacturing, Energy And Sustainable Development at Sidi Mohamed Ben Abdellah University, Fez. His research areas include Automated Production, Industrial Engineering and Logistics.