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Outsourcing of Logistics Services in Hospital

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Founded in 1912 as a private institution, the Balgrist University Hospital/ Uniklinik Balgrist ranks among the pioneers of orthopaedic surgery in Europe. The hospital includes a spinal cord injury centre and the diagnosis, treatment and rehabilitation of patients suffering from musculoskeletal impairment is one of its core objectives. It also maintains an elaborate interdisciplinary network merging orthopaedics, paraplegiology, physical medicine, rheumatology, radiology, and anaesthesiology.

Restructuring of Logistical Procedures

In 2003, we reviewed the logistical process within our hospital. Results revealed that several staff members were inappropriately involved in logistics, leaving their core responsibilities unattended. This was unacceptable. We think that, for instance, nurses should take care of patients, including assistance to surgeons, instead of completing logistical tasks.

To relieve nurses of logistical duties, such as ordering, internal transportation, and refilling shelves, these functions were transferred to the department Purchasing & Logistics (P&L). In addition, we faced a decision with respect to our medical products warehouse: should we keep it in the hospital or source it out? As we did not intend to employ additional personnel for P&L, we decided to outsource this internal warehouse. Other motivations were to use the space for other purposes in our clinic. Since November 2004, a commercial partner affiliated with the Swiss post has managed our external warehouse, which is located near Zurich. This gives us the opportunity to integrate additional hospitals into this external warehouse and thereby generate economies of scale. As we already cooperate with two other general hospitals close to Zurich, we intend to share the external warehouse next year. In addition, all three hospitals will use the same internet-based order-platform.

Direct Delivery to the OR

We have also outsourced part of our logistics in the form of a direct delivery program to the operating room (OR). The requirements were:

- Reducing preparation time in the OR for OR personnel and relieving them of logistics functions; • Identifying involved items, total volume of these items and integrating them into procedure kits for the OR;
- Concentrating this volume on one supplier (€ 330,000 per year);
- Building a continuous supply chain without employing additional personnel during evening hours.

As the costs for outsourcing the whole supply chain – from the supplier to the hospital shelves – within the OR were less than 5% of the total value of purchases, we outsourced this part of logistics separately. We signed two separate contracts with our commercial partner:

- One contract with the supplier concerned the items/kits, the availability, and the commissioning process including the timetable when the commissioned sets should be ready for pick up by the logistics partner;
- One contract covered transportation, unpacking, refilling the shelves in the OR during a fixed time slot (7-9 pm). The advantage of two independent contracts is that if it is necessary to change the supplier, the logistics partner may remain unchanged. Conversely, if you are not satisfied with the logistics partner, you can easily opt for a new service company.

This relationship is a triangle: OR/user, logistics partner, supplier. We discussed the following details: responsibility for stock within the OR, how to transmit the needs of the OR, the regular flow of information between the three partners, packaging of items including the specifications of trolleys, labelling of items and trolleys (including their identification), transportation of full/empty trolleys including waste management, behavioural aspects within the hospital specifically in the OR, as well as emergency situations.

To assure a continuous supply chain our OR will be refilled with 17 kits/ items three times weekly (110-120 deliveries per year) according to the following procedure:

- During the morning OR personnel transmit the inventory to the supplier via fax using a special order form for these particular items;
- The supplier generates the order, considering the available space in stock OR (the supplier knows the maximum quantity of each item which has to be stored in the OR);
- The supplier commissions all items using cleaned, closed, and sealed aluminium trolleys without primary packaging and contacts the transportation partner (as the time needed by the logistics partner within the OR has been reduced to a minimum, and the items are well protected in the trolleys, primary packaging can be avoided);
- The transportation partner arranges transportation to the hospital, refills the shelves in the OR between 7-9 pm, while observing in-house hygiene regulations (between 7-9 pm the OR is running on low capacity! Consequently, there is a low patient flow between our OR and other departments within the hospital; our in-house hygiene regulations specify the behavioural aspects of people working in the OR including working clothes);

- Purchasing and Logistics return the alu-trolleys, including secondary packaging;
- Finally, OR personnel take the items / kits needed from the shelves.

These procedures also include an emergency contingency. In case of accident, the supplier has all detailed information about the damaged/lost order and can consequently generate an additional shipment, which can reach the OR either the same evening or at the latest, the following morning. If the replacement shipment fails again, our partner has an emergency stock of the eight most important kits/items. Hence, the OR workflow can be maintained continuously.

Conclusion

Summarising our three years of experience in delivering to OR directly, the major advantages are that medical staff can now concentrate on their core activities. We did not have to hire additional personnel within P&L to perform this tailor-made service for the OR. Instead, we generated a continuous flow of materials into the OR and reduced the number of items by creating kits. As the value per single item is low, the additional logistical costs, amounting to less than 5% of the purchasing volume, are not excessive. Outsourcing logistics converts fixed overheads into variable costs. The operational risks of outsourcing can be minimized to almost the same extent as an in-house service can guarantee. Outsourcing requires proper detailed planning of the whole process. Everything must be clearly defined, as to what will be done by internal and external staff. For instance, when the logistic partner approaches the OR, he must know where to park the trolley with the sets, in which sequence to unload the trolley, how to identify the items, as well as where to locate them exactly in the OR (considering FEFO—first expires first out). The supplier has to ensure that trolleys are filled with sets in a predetermined sequence, to assist a subsequent efficient and clear delivery by the logistic partner. In all, we are completely satisfied with the quality of this outsourcing and have failed to identify any drawbacks in our experiences over the last three years.

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