

# Pallet box implementation: a combination of improved working conditions, storage and waste optimisation?

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## What was done?

- Implementation of pallet boxes for surgery-packs' storage on a proposal from one of our biggest supplier
- Comparative study of 2 storage solutions

## Why was it done?

- Optimise storage and waste
- Improve working conditions of logistic workers
- Decrease musculoskeletal disorders (MSD)

## How was it done?

- Timing and cost evaluation of:
  - Internal transport (from delivery gate to storage room)
  - Order picking for surgery ward (from picking the first pack to cardboard flattening)
- Estimation of cardboard waste

## What has been achieved?



### 2023 estimation for 1 reference: coronarography packs

5,392 units estimated

= biggest rotation among surgery packs in our clinic

24%

### Room saving

→ 52 pallet-spots yearly instead of 68

24%

### Time saving on internal transport

→ 13h yearly instead of 17h

40%

### Time saving on order picking

→ 9h picking instead of 15h

50%

### Reduction of cardboard waste

603kg of empty cardboard instead of 1213kg

### « Traditional » storage

20 boxes of 4 units each  
 = 80 coronarography packs

### Pallet boxes

2 boxes of 52 units each  
 = 104 coronarography packs

## Discussion

- +53% wooden-pallet waste (104 pallets (2 pallets on one spot) yearly instead of 68)
- +2% price increase for surgery packs stored in pallet boxes ⇔ +4,100€ for coronarography packs in 2023
- Additional cost for pallet boxes isn't balanced by savings on internal transport and order picking (10h yearly ≈ 150€)
- Difficulties to assess musculoskeletal disorders' decrease by changing storage mode for only one reference

## What next?

- Unanimous satisfaction of logistic workers with pallet boxes on many aspects
  - Internal pallet transport
  - Order picking
  - Waste disposal
- Decision to implement pallet boxes in the long term despite additional cost for coronarography packs
- Extension to other references in the future such as radiology packs

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