

# Bridging the Hospital-Home Gap

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## Set up of a home based specialized care network for postoperative lung surgery patients

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### CONCLUSION



- Recovery does not stop at the hospital door
- Home based care and support by a specialized nurse can improve patient satisfaction, reduce (fear of) pain and dyspnoe and feelings of insecurity
- Thereby empower patients and support recovery after major lung surgery at home in stead of in the hospital
- Close connection of a home team and the hospital team facilitates early intervention for (prevention of) complications
- This “extension of care beyond hospital doors” not only improves support for recovery after discharge but also greatly improved insight of the Centre for Lungcancer (CLC) team in what matters most to a patient and conditions to be able to heal. This offers opportunities to also improve the in-hospital care.

### BACKGROUND

For patients undergoing major lung surgery, **the difference between postoperative care and support in the hospital and at home is very big** and often limits early discharge.

Evenmore, it risks preventable delay and disturbance of recovery in the outpatient setting.

Generally, lung cancer patients are already pulmonary compromised and often have other organ systems that are compromised too. Intervening in one of their vital organs by removing half a lung merits optimal support of other systems (both physical as mental) to maintain balance.

Minimal invasive surgery and the Enhanced Recovery after Thoracic Surgery program (ERATS) in our hospital promote quick recovery and mobilisation; important in prevention of cardiopulmonary complications. After a few days, most patients are mobile and ready to go home.

However, maintaining their favourable path of recovery seemed dependent on hospital care/support and difficult to keep at home after early discharge.

Pain and fear of thorough breathing after lung surgery can lead to complications such as pneumonia

### METHODS

1. Identify factors with negative influence on recovery at home by interviewing patients and analyzing readmissions and ER visits

2. **Training of specialized lung nurses**, readily experienced in home care of patients with severe COPD, by the CLC hospital team to support postoperative patients, focussing on:

- **patient empowerment, build confidence,**
- **addressing feelings of insecurity, fear and pain,**
- **treating pain**
- **breathing and coughing techniques,**
- **creating a healthy home environment,**
- **early signalling of emerging complications, facilitating early intervention**
- **mobilizing own support network patient @ home (relatives & professional)**

- Program of 6 postoperative visits of one hour in home setting
- Questionnaires for all patients, home lung nurses as well as CLC team members
- Pre-arrange easy access to CLC team for questions/feedback through our specialized lung nurse, who has direct, daily access tot physician advice(e.g. lung, surgical, internal, microbiologist, anaesthesiologist)
- Develop several (digital) tools to support this
- Bypass financial and organisational boundaries by starting it up as a pilot together with hospital, home care organisations and health insurance

### DISCUSSION

- Time of clinical staff (eg nurses and physicians) to work on such a project is often limited to enthusiastic clinicians in their spare time and that limits progress. It should be anticipated for (e.g. included in budget and cost calculations/free time)
- The project greatly improved insight of the team in what matters most to a patient and their conditions to be able to heal. We even started to move home visits to prior to surgery, in order to incorporate those insights on patient level in the course of clinical treatment (both on patients and professional side)
- Recovery does not stop at hospital door but hospital budget does; close cooperation with all stake holders e.g. insurance companies is mandatory

### RESULTS

Patients and care team report:

- (fear of) pain and dyspnoe
- feelings of insecurity after discharge at home are important negative impact factors on recovery (QOL but also causing complications!)
- regular home care nurses did not always have the expertise to support this in postoperative lung patients

**Establishment of a new patient centred network of specialized lung nurses for postoperative care at home.**

- **Connect** home care team to the hospital team (e.g. mail/phone/secured app)



### RESULTS 2

- All our post-operative lung surgery patients are allocated to specialized home care nurse now
- In first 14 patients as a pilot:
  - Patients, home lung nurses as well as CLC team members were happy about added value, all scores on quality above 4,5 out of 5.
  - Reduction admission days (- minus 2-5 days = 25%)
  - Reduction unscheduled outpatient visits (minus 100%)
  - Reduction of readmissions (higher, 1 patient extra elevates score by 200% in pilot)
  - 75% strongly prefers a home setting above a hospital setting,

Questionnaires are continued for the larger cohort.

Development of (digital) tools to support this e.g.:

- Patient information app/folder “*The right information at the right time*”
- Short instruction films with breathing exercises

