

HOME VISITS TO PATIENTS WITH SERVERE COPD

– a health technology assessment

Summary

2009

HOME VISITS TO PATIENTS WITH SEVERE COPD

– a health technology assessment

Summary

Anne Hvenegaard¹, Jens Albæk¹, Marie Lund Nielsen¹, Jakob Hansen¹, Thomas Ringbæk¹,
Torben Højmark Sørensen¹, Marlene Willeman Würgler¹

¹Danish Institute for Health Services Research

Home visits to patients with severe COPD – a health technology assessment; Summary
© National Board of Health, Monitoring & Health Technology Assessment

URL: <http://www.dacehta.dk>

Key words: health technology assessment, HTA, oxygen, home visits, chronic obstructive lung disease, COLDC, quality of life, coping, organisation, cost, economic analysis

Language: English summary of the full report in Danish

Format: pdf

Version: 1.0

Version date: July 27 2009

Issued by: National Board of Health, Denmark, September 2009

Category: Advisory

Design: National Board of Health and 1508 A/S

Layout: Schultz Grafisk

Electronic ISBN: 978-87-7676-892-8

Electronic ISSN: 1601-586X

DSI ISBN: 978-87-7488-605-1

DSI ISSN: 0904-1737

This report should be cited as follows:

Hvenegaard A, Albæk J, Nielsen ML, Hansen J, Ringbæk T, Sørensen TH, Würzler MW. Danish Institute for Health Services Research.

Home visits to patients with severe COPD – a health technology assessment

Copenhagen: National Board of Health, Monitoring & Health Technology Assessment, 2009
Health Technology Assessment – funded projects 2009; 9(4)

Series title: Health Technology Assessment – funded projects

Series editorial board: Mogens Hørder, Stig Ejdrup Andersen

Series Editorial Manager: Stig Ejdrup Andersen

For further information please contact:

National Board of Health
Monitoring & Health Technology Assessment
Danish Centre of Health Technology Assessment (DACEHTA)
Islands Brygge 67
DK-2300 Copenhagen
Denmark

Phone: +45 72 22 74 00

E-mail: dacehta@sst.dk

Home page: www.dacehta.dk

The English summary can be downloaded at www.dacehta.dk

Summary

This technology assessment identifies and elaborates on the attempts of implementing a system of monitoring the oxygen consumption in the homes of patients, who are undergoing long term oxygen treatment due to chronic disease.

The basis of the technology is that patients with advanced lung diseases, such as COPD (Chronic Obstructive Pulmonary Disease) or lung cancer, have their oxygen consumption monitored at home by a nurse from the hospital, at which they previously have been admitted. The technology therefore mainly focuses on the particular way in which the treatment of lung disease patients have been organised. Hereby, the technology (or the professional contribution) to a great extent is synonymous with organisation. Traditionally, the supervision of oxygen consumption has been carried out only on an outpatient basis at hospital clinics.

A primary collection of data has been carried out, which includes keeping records of oxygen consumption check-ups during a four month period at three hospitals offering home visits as well as two hospitals not offering home visits. During this four month period, 783 patients were connected to the hospitals with home visits and 439 patients were connected to the hospitals without home visits.

The analysis revealed that, when connected to the hospitals offering home visits, a significantly larger number of patients actually received check-ups. Furthermore, it turned out that among the patients, who did receive check-ups, the patients connected to hospitals offering home visits on average received a larger number of check-ups during the four month period.

In addition, in the group of patients connected to the hospitals offering home visits a larger number of severely ill patients and patients, who require more advanced transport (e.g. transport in lying posture), received check-ups. Thus, it is concluded that when hospitals offer follow up check-ups of oxygen consumption at the patients' homes, more check-ups are actually carried out, including even check-ups of the severely ill and "transportation heavy" patients.

The purpose of the organisational analysis was to describe how three selected arrangements of home visits have evolved 1) when comparing them to the original plans, and 2) with regards to the interpretations and changes, which has occurred in the life span of the arrangements.

The analysis finds that the organisation of the three arrangements differs in various ways. Primarily, the arrangements had been differently organised as regards to the affiliation of the lung medicine medical ward or outpatient clinic.

Secondly, there were differences in the frequency of home visits, the use of apparatus etc. The home visits oxygen nurses carry out a much specialised function. Therefore it may be relevant to suggest further vocational training and specialised sparring. However, literature in this field is very ambiguous, when it comes to oxygen nurses' need for vocational training. As the oxygen nurses carry out a much specialised and independent function, it is of utmost importance to give full attention to their possibilities of professional sparring.

These cases suggest that there is a need for further strengthening the offers to patients with chronic diseases as opposed to the readiness of emergency treatments. Organisationally, the development of these home visits arrangements suggest that a further interpretation and adaptation of this functions' organisation and performance is recommended.

In spite of the fact that the patients were not able to precisely point out the advantages of home visits compared to outpatient check-ups at the hospital outpatient clinic in the aforementioned patient study, the general opinion shows a tendency towards the positive. This can be concluded as it became evident that the way the patients handled the consequences of COPD seemed to be consistent with having the oxygen check-ups being carried out in the patients' own homes through visits by the same specially trained nurse.

There was significant variation in the sense making among the patients as regards the regular visits of the oxygen nurse. Some patients considered the visits as a practical check-up visit only. Other patients, however, regarded the visit as an opportunity to receive information about the disease and a dialogue with the nurse. Finally, a group of patients considered the oxygen nurse as their primary sparring partner with regard to their COPD disease. Often they had prepared a number of questions and issues they would like to bring up during the oxygen nurse's visits, and they attribute great importance to the visits. In conclusion, it can be pointed out that check-ups of oxygen consumption in the patients' own homes had several positive consequences, which should be emphasised when evaluating the function of the arrangements.

The objective of the economic analysis was to examine whether or not patients, who receive oxygen check-ups at home consume less resources in the health sector, i.e. hospitalisations, outpatient check-ups, consultations at own GP and specialists, than patients, who only receive traditional outpatient check-ups at the hospital. The economic part of this technology assessment was carried out as a six months follow up study, where a group of patients ("the intervention group") received home visits by the oxygen nurse, while another group received traditional outpatient check-ups at the hospital.

For the intervention group, it was observed that the number of hospitalisations were less than the group of traditional hospital check-ups patients (1.3 vs. 1.6 hospitalisations). Furthermore the intervention group showed a lower total average costs (DKK 12.000 less). The differences were not statistically significant, but as the study had not been designed to prove statistically significant differences, they were not meant to be.

When it comes to quality of life, it has not been possible to confirm or reject the hypothesis that patients receiving home visits have a higher quality of life or less impairment, compared to the patients in the control groups.

All in all, the results show that home visits lead to a series of positive consequences, and therefore may be considered as a good offer. Nevertheless, stronger evidence, especially on the economic side, is desirable. The hospitals offering home visits carry out check-ups on a larger number of their patients, including severely ill patients who would normally be in need of horizontal transport. This is one of the main purposes of the establishment of arrangements of oxygen consumption check-up home visits. Thus, the technology of oxygen home visits is available and applicable as a relevant offer to COPD patients as well as other patient groups.

When looking at the results of the four sub analyses, it is suggested that a general development in the health services regarding the establishment of advanced offers has taken a special form in this case. It seems that the hospital base, recurring in all arrangements, is due to a need from the hospital management to obtain an overview of the oxygen consumption as well as the patients' situations.

This development points to an improvement in communication and an increase in the coordination of offers between the parties involved in the planning of different types of offers for this patient group.

Conclusively, this technology states that this home visits arrangement is the beginning of a sound development towards "shared care" between the specialised hospital based offer, the oxygen suppliers, the home nursing system and the general practitioner.

www.dacehta.dk

National Board of Health
Monitorering & Health Technology Assessment
Danish Centre for Health Technology Assessment
Islands Brygge 67
DK-2300 Copenhagen S
Phone: +45 72 22 74 00

E-mail: dacehta@sst.dk
Home page: www.dacehta.dk