

# Video as patient decision support

What does it mean to the patient, and what effect does the video have on the patient's choice of treatment?

Report on a study carried out in collaboration among the Department of Orthopaedic Surgery at Gentofte Hospital, the foundation Trygfonden, Danish Regions and the Danish Society for Patient Safety

Published by  
**The Department of Orthopaedic Surgery, Gentofte Hospital  
and the Danish Society for Patient Safety**  
May 2014

Hvidovre Hospital  
Afsnit P610  
Kettegård Alle 30  
DK-2650 Hvidovre

Tel. +45 3862 2171

[info@patientsikkerhed.dk](mailto:info@patientsikkerhed.dk)  
[www.patientsikkerhed.dk](http://www.patientsikkerhed.dk)



## Preface

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The significance of the active role of patients and their families in the decision-making processes of the healthcare has become apparent in recent years. Research from both Denmark and abroad document that the active involvement of patients has a positive effect on the result of the treatment as well as on patient satisfaction.

In 2012, with the support of Trygfonden and Danish Regions, the Danish Society for Patient Safety instituted the production of a decision support tool – in the form of a video which addresses patients with pronounced osteoarthritis of the knee, who are about to make a decision about surgery involving total arthroplasty (knee replacement). The video was produced in collaboration with the Department of Orthopaedic Surgery at Gentofte Hospital and the Department of Orthopaedic Surgery at Aarhus University Hospital.

The video has now been tested at the Department of Orthopaedic Surgery at Gentofte Hospital. 200 patients took part in the study and were assigned to an intervention group and a control group, respectively. The result is convincing:

Only about every fourth patient chooses surgery after watching the nine-minute video before the medical interview at the Department of Orthopaedic Surgery. In the group of patients who did not watch the video 42% chose surgery. This corresponds to 36% fewer patients choosing surgery. Simultaneously, the patients who had seen the video had significantly more knowledge of treatment options other than surgery.

Consequently, the study shows that patients make other decisions when they know more about available options and have been equipped for entering into a dialogue with the physician about what would be the best option for them.

The study confirms what has previously been found in large studies abroad: The more information patients have about alternative options to surgery, the more they decline the surgical option. Actually, according to a Cochrane analysis, in overall terms about 20% fewer patients choose surgery when there are other treatment options.

We hope that the result will contribute to an increased use of the video and inspire the development of new decision support tools within other clinical areas.

We thank our collaborative partners who have worked hard to make the project a success, and we thank Gigtforeningen (the Danish Rheumatism Society), which established contact to the patients who participate in the cases presented in the video.

May 2014

Beth Lilja  
Director, the Danish Society for Patient Safety

## Video as patient decision support

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Medical research from both Denmark and abroad document that shared decision making and thereby the involvement of patients has a predominantly positive effect on the outcome of treatment as well as on patient satisfaction. Effective communication between physician and patient improve treatment results. Better-informed patients seem to show greater treatment satisfaction and more compliance. A patient's perception that he or she is involved in controlling and have an influence on the treatment improves his or her individual response to it. The involvement of patients and patient decision support are therefore regarded as essential factors in the effort to enhance the quality of the healthcare in Denmark and abroad.

One of the priority areas of the national strategy for quality improvement in Danish healthcare is the promotion of the patient's role in the improvement effort by establishing better conditions for the active involvement and influence of patients and their families. Shared decision making is one of the newest patient involvement concepts in health research. Shared decision making is a treatment decision model that prescribes how decisions should be made.

The model is based on the idea that the physician communicates medical knowledge to the patient, and that the patient's rights, perspectives and preferences are included in the clinical interview. Shared decision making thus invites the patient to have an increased influence on and participation in decisions about treatments. Consequently, shared decision making aims at establishing a partnership between the healthcare provider and the patient, which means, among other things, that the healthcare provider and the patient, through dialogue, must determine what will be the best treatment and the kind of treatment that must be carried out. The exchange of knowledge and information is one of the most crucial conditions for implementing the shared decision making model in clinical practice.

It is important to separate shared decision making from patient decision support. Shared decision making is a process carried out in the meeting between the patient and the healthcare provider, which leads to a treatment choice. Patient decision support is a tool that gives the patient and/or the physician an optimised basis for deciding what would be the patient's best possible individual choice. The patient can thus use patient decision support alone, for example in preparing for a consultation where the patient must decide on a treatment. (1) Patient decision support may assume many different forms, and the one which is used the most is an interactive video which typically informs and render visible the different kinds of treatment relevant to the individual patient.

In view of the above, the Danish Society for Patient Safety decided, with the support of TrygFonden and Danish Regions, to produce a video and test it as a patient decision support tool. The video was produced in collaboration with the Department of Orthopaedic Surgery at Gentofte Hospital and the Department of Orthopaedic Surgery at Aarhus University Hospital. The video addresses patients with pronounced osteoarthritis of the knee who are about to make a decision about surgery involving total arthroplasty (knee replacement). The video presents the cases of two female patients who have both undergone

orthopaedic treatment because of osteoarthritis of the knee. One woman underwent surgery and got a knee replacement, while the other woman went through an assisted weight loss programme (expectant treatment). Both women were very satisfied with their treatments and their decisions about their chosen treatment. Two experienced consultants whose specialty is knee surgery participate in the video and explain the background for choosing either surgery or expectant treatment. The video thus illustrates the various treatment options, which is expected to assist the patient in making a more informed treatment choice. The duration of the video is nine minutes.

To investigate the effect of the video on patients, a protocol was created which set out the framework of a clinical trial. The trial was carried out in collaboration with the Danish Society for Patient Safety and with the financial support of TrygFonden.

## Material

200 patients take part in the study. They were referred by the Department of Orthopaedic Surgery at Gentofte Hospital and diagnosed with osteoarthritis of the knee. The study is an open, randomised, controlled trial with two groups (100 patients in each group). One group watches the video before their medical interview (the intervention group), while the other group (the control group) only receives the offer to watch the video after their medical interview and after having filled in a questionnaire. The questionnaire shows both the view of the video among patients in the intervention group and the perception among patients in both groups of the outpatient visit and the decisions made.

At the end of March 2014, 200 patients had been included in the trial: 102 in the intervention group and 98 in the control group.

## Results

Several physicians have reported that they felt that the patients in the intervention group were better equipped for the interview about their disease of the knee. Consequently, both patient and physician may experience that the video has a positive effect on their shared decision making.

- 98% of the patients in the intervention group liked the video and found it credible.
- 98% of all the patients in the intervention group thought that having a video as informative material was a good idea.
- 79% found that their knowledge of alternative options had been enhanced after watching the video.
- 66% of the patients in the control group did not find that having a video as information would be a good idea.
- 96% of the patients in the intervention group found that the duration of the video of nine minutes was a suitable duration.
- 65% of the patients in the intervention group were able to identify with the two female patients in the video.
- 50% in the intervention group found that the video had helped them in their decision-making.

Previous studies from abroad have shown that patients who use decision support more often choose less radical treatments and more often decline surgery.

The below figure (Figure 1) shows the number of patients in the intervention group and the control group, respectively, who were booked for surgery. The figure shows that the number of patients who are booked for surgery amounts to 42% of the control group, while only to 27% of the intervention group, which corresponds to a reduction in surgery bookings of 36% ( $P < 0.05$ ).

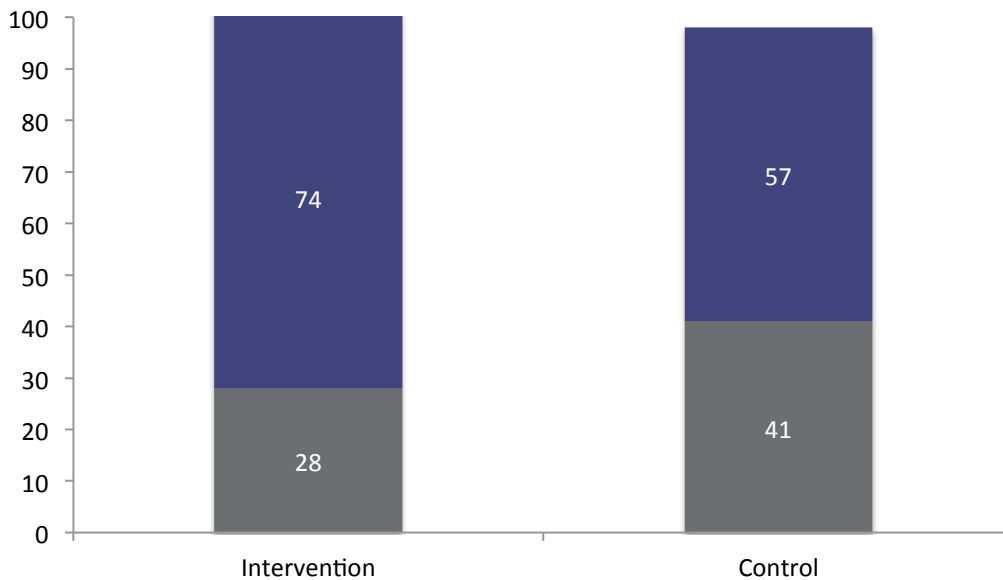


Figure 1. Patients booked for surgery, number by group

A key objective of the video is to increase the information level and ensure that the patients feel they have received the best possible information. Therefore, both groups were asked about their knowledge of treatment options other than surgery. 79% of the intervention group subsequently knew about other treatment options against only 39% of the control group (see Figure 2). Consequently, this indicates that patients who watch an information video before a medical consultation are better equipped for shared decision making.

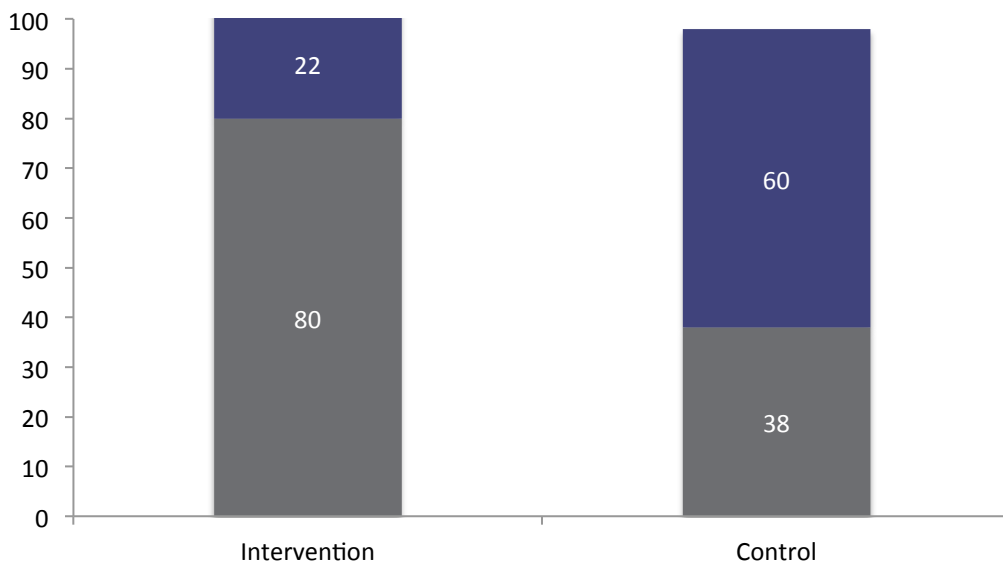


Figure 2. Patients knowledgeable about treatment options, number by group

The study also showed that, logistically, patients could easily be shown this short video in connection with their outpatient visit without using up extra time. However, the patients should be able to sit in peace and quiet, which may require the availability of an extra room and computers for showing the video. Alternatively, an Internet link could be created for the patients, enabling them to watch the video at home. However, there was consensus among those involved in the study that the video was a good idea, but that it must not replace the personal, informative contact practised, for example, at the weekly patient seminars.

## **Conclusion**

The study shows that the video is an efficient patient decision support tool which most patients may derive benefit from. Data from the study show great satisfaction with the video among patients and enhanced knowledge about treatment options in the intervention group. A statistically significant reduction in the number of patients booked for surgery could be established in the intervention group.

The patients will be followed during the coming year to see whether the number of patients undergoing surgery will still be lower in the intervention group than in the control group after one year.

## **Future implications**

A good connection between shared decision making and better disease control and clinical outcome has been established within other specialties, in particular diabetes, hypercholesterolemia and osteoporosis and especially as regards the weakest patient groups.

Within the field of orthopaedic surgery, there are a number of diagnoses with several alternative treatment options, either surgery or continued non-surgical treatment, typically weight loss and exercise. These diagnoses are, for example, shoulder impingement, rupture of the anterior cruciate ligament, and especially arthroscopy in simultaneously early arthrosis and MRI proven meniscus lesion.

Thus, there seems to be a great need for developing more decision support tools within the field of orthopaedic surgery, to ensure better shared decision making. Presumably, this will increase the possibility for a better clinical outcome, greater patient satisfaction and less inequality for orthopaedic surgery patients.

The following persons have contributed to the study and the report:

Jens Peter Alva-Jørgensen, Specialist Registrar  
*Department of Orthopaedic Surgery*  
*Gentofte Hospital*

Claus Munk Jensen, Clinical Director  
*Department of Orthopaedic Surgery*  
*Gentofte Hospital*

Lone Bjørklund, Senior Clinical Nurse  
*Department of Orthopaedic Surgery*  
*Gentofte Hospital*

Brian Bjørn, Staff Specialist  
*Danish Society for Patient Safety*

Lone Hyldborg, Nurse  
*Department of Orthopaedic Surgery*  
*Gentofte Hospital*

Anders Odgaard, MD, Consultant  
*Department of Orthopaedic Surgery*  
*Gentofte Hospital*