

# Acceptance for teleconsultations for orthopedic conditions

## A project in Northern Norway

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# Why telemedicine and orthopedics?

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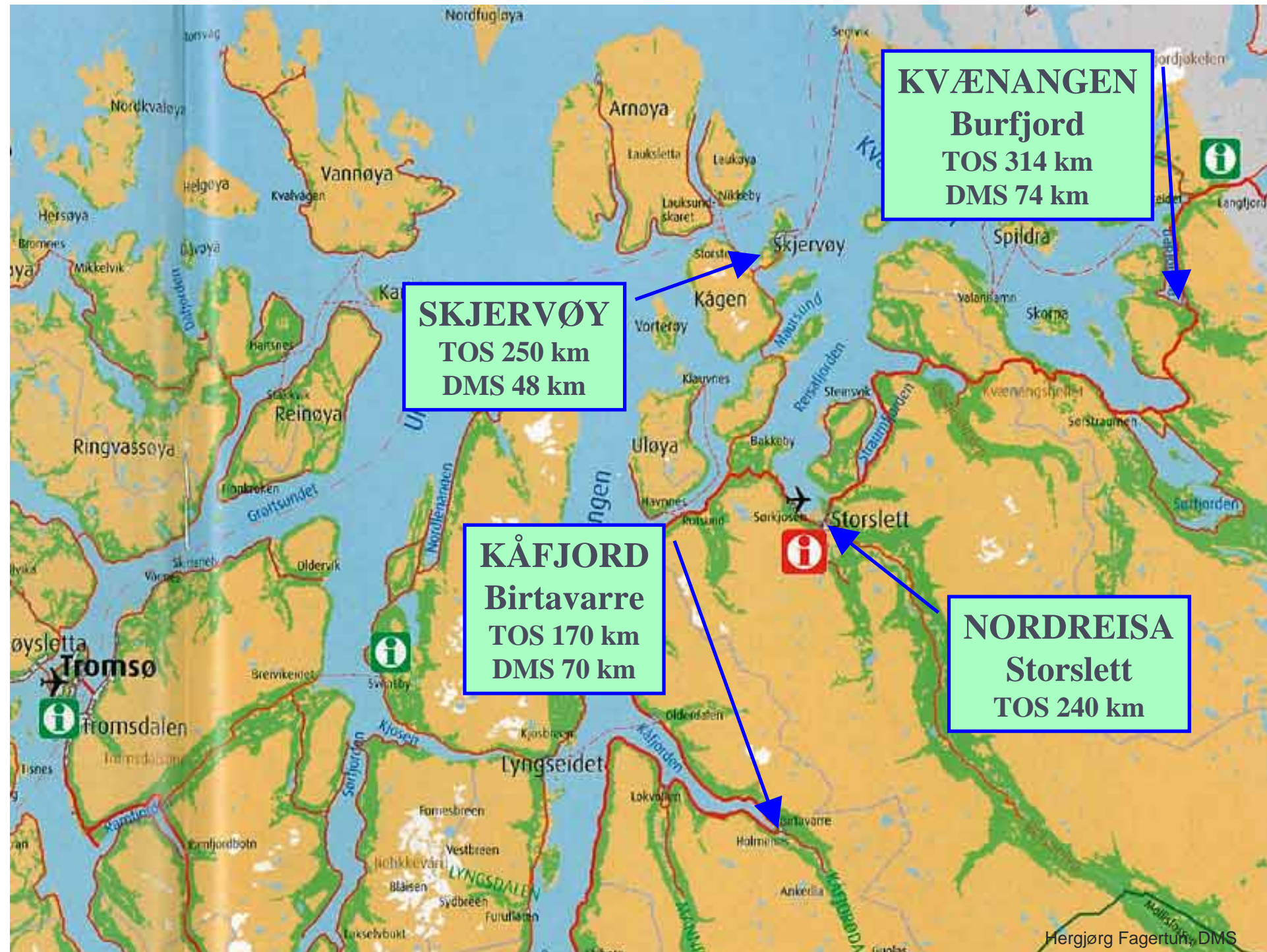
- Increasing demand for specialist consultations, follow-up consultations
- Patients traveling long distance
- "Waste of time"
- High traveling expenses
- Digital standard X-ray



# Why telemedicine and orthopedics?.....cont.

- UNN – paying for the patients traveling expenses since 2005
- Motivation to look for alternatives (=money)
- In 2005: 800 orthopedic outpatient consultations from 4 northern communities in Troms county
- District Medical Center in Storslett with standard X-ray lab (digital)





# Remote Orthopedic Outpatient Consultation by help of Telemedicine: a Randomized controlled study

- Feasible?
- Safe?
- Patient satisfaction?
- Cost effective?



# [ Study population ]

- Patients from 4 northern communities in Troms (Kvænangen, Nordreisa, Skjervøy and Kåfjord)
- Some new referrals to orthopedic outpatient clinic. Examples: Cox-/ Gonarthrosis, Hallux valgus,
- Follow-up visit after elective surgery
- Follow-up visit after fracture treatment (operative or conservative)



# [ Excluded ]

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- Patients with conditions requiring examinations not available at Sonjatun
- Patients who need other outpatient clinic visit
- Senile dementia
- Patients who need interpretation during the consultation
- Patients to be seen by a specific doctor



# [ The application ]



- Broad band ("Norsk Helsenett") (10Mbis full duplex)
- Video- unit LCD flat screen 26 inch with camera/codec, roll-about
- Smaller unit in Tromsø, stationary
- Standard UNN PC and printer (in Tromsø and Sonjatun)



# A remote orthopedic outpatient consultation

- X-ray if necessary
- Nurse receive the patient and helps during the consultation
- No doctor is with the patient
- Simultaneous videoconference with the orthopedic surgeon situated in UNN, Tromsø
- Nurses at remote location can change a cast if necessary
- Decisions for further treatment made by the orthopedic surgeon in agreement with patient
- Prescriptions, sick-leave documents, documentation in journal, referral for operation et cetera finished by the orthopedic surgeon



# [ So far ]

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- 11 patient included (7 randomized to Sonjatun). Pilot project about to be finished
- In addition 8 patients have benefited from the telemedicine equipment since February 2007



# [ Experience –pilot project ]

- Pilot project – not finished yet –not analyzed the question forms.
- Patients very positive to be included
- Spontaneous - positive response not to have to travel, to have this possibility close to home



# [ Experience – other patient ]

- 1st patient - local GP needed help to treat a tibia fracture – without sending the patient in ambulance 250 km (one way) with escort
- 5 patients have been children with fractures (x-ray control, changing cast, removing cast, information to parents)
- 2 patients fracture control with cast change and cast removal (saved taxi expenses)
- One patient wanted to come to UNN for follow-up (-- wanted to go shopping)



# [ Advantages ]

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- Reduction in traveling costs, save patient time; both elective and acute patients
- Possible to support local GP in consultations
- Patients from rural area can more easily get same follow-up frequency as local patients in Tromsø
- No waiting list for X-ray in Sonjatun (so far)
- Telemedicine application can be used for teaching, other disciplines etc



# [ Disadvantages ]

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- Each consultation take longer time in total
- Technical brake down – frustration, more technical equipment – more possibilities for trouble
- “Loosing the focus”? Too much non-medical things to distract the doctor?
- To many follow-up consultations; doctors more uncertain about the diagnosis/treatment
- More likely that the patient don't understand the information that is given??



# [ further ]

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- Analyze the results from pilot project
- Hopefully - in August start with the project – 500 patients to be included
- Results of the main study after 2009  
.....??
- Some additional patients will profit from the telemedicine application in the mean time



[ Thank you for your attention.. ]



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