

# Statins in the oldest old: clinical effectiveness and approaches to shared decision making

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## Background

Statin use is common in the oldest old (age 80+). In Denmark, 20% of those 85+ were taking statins in 2010, representing a 3 to 4-fold increase since 2000. There is a lack of evidence on appropriate statin use in the oldest old, despite their prevalence in this population. As such, there is question as to whether statins should be continued or discontinued in this group. Such treatment decisions should always be shared and individualized; however, evidence on this topic would be helpful to guide decision-making. Treatment guidelines recommend individualizing statin treatment in the oldest old based on a discussion of patient goals and preferences and based on patient clinical status (e.g. life expectancy, co-morbidities, etc.). However, it is unclear how such discussions can be best operationalized. Information is lacking on factors that facilitate discussions and decision-making regarding statin use in the oldest old.

## Aim

We will examine the clinical effects of continued long-term statin use compared to discontinuation of statins in the oldest old. We will also evaluate how clinicians and patients can effectively engage in a discussion surrounding continuation or discontinuation of a statin- one that allows for shared decision-making and incorporates patient values and preferences. The project will specifically address the following questions:

- 1) What are the benefits and harms of discontinuing statins compared to continued use in persons 80 years of age or older?
- 2) How do GPs prefer to engage patients in discussions surrounding discontinuation or continuation of statins?
- 3) What are older patients' values and preferences related to discontinuation versus continuation of statins in primary care and how do patients prefer to engage in this discussion with their GP?

## Method

### Study 1

We plan to use health registry data to conduct a retrospective cohort study in Danish patients aged 80 years or older. We will include patients who have been taking statins for at least one year. We will compare patients whose statin was discontinued to those who continued statins for the following outcomes: cardiovascular mortality, fatal stroke, non-fatal stroke, non-fatal myocardial infarction, all-cause mortality, hospitalization-free survival and GP visits. We will conduct sub-group analyses, including evaluation of primary prevention and secondary prevention.

### Study 2

We will use a mixed methods approach involving GP interviews and a discrete choice experiment (DCE). We will first conduct individual interviews with GPs. The interviews will identify methods and techniques that GPs use to engage older persons in a discussion of statin continuation versus discontinuation, and various aspects of such a discussion. From the synthesis of interview data, we will identify attributes and levels of attributes to develop a DCE questionnaire. Attributes

and levels will be used to develop choice sets based on hypothetical patient encounters/discussions. The questionnaire will be delivered online to Danish GPs to identify which factors are important for discussing statin use with patients from a GP perspective.

### **Study 3**

This study will be conducted using a survey framed around discontinuation versus continuation of a statin. Subjects will be recruited via community pharmacies. Our outcomes for this study will be patient-rated importance of: (1) factors related to continuation and discontinuation of statins and (2) factors related to communication surrounding continuation versus discontinuation of statins. Subjects will rate the importance of different factors affecting the decision to continue or discontinue a statin as well as the factors important to them in discussing the decision with their GP.

### **Project status**

Ongoing. Project carried out from November 2017 to November 2020.

### **Related publications (links)**

None

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