Nurse-led clinics for hypertension – what do they offer?

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Agenda

- What is the evidence for nurse-led clinics for hypertension?
- Possible benefits of nurse-led clinics
- How can it be delivered? Organisation of a local clinic as an example

-There is no conflict of interest-
Nurse-led clinics for hypertension

What is the evidence?

- Pooling of 12 studies: -13 mmHg reduction in SBP and -8 mmHg in DBP compared with usual care

- Systematic review concludes that studies on nurse-led hypertension clinics in secondary care (6) were too different to combine

Fahey et al. Cochrane database syst. Review 2005;1
Clark C et al. Nurse-led interventions to improve control of blood pressure in people with hypertension. Syst review & metaanalysis. 2010
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What is the evidence?

- 19.6 mmHg reduction in SBP vs. 6.6 mmHg in SBP in usual care group for patients with diabetes and hypertension

- 27% reached goal compared to 24% in usual care for patients with diabetes and hypertension

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What is the evidence?

- Reduction of 37 vs. 17 mmHg in SBP and 21 vs. 10 mmHg in DBP comparing nurse-led and usual care

- Two randomised controlled trials found no significant effect of nurse-led clinics.

Litaker et al: Interprof Care 2003
Nurse-led clinics for hypertension

What is the evidence?

Andersen et al. Blood Pressure. 2010
Nurse-led clinics for hypertension

What is the evidence?

- Promising area
- More evidence
- Larger trials
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- Possible benefits?
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Possible benefits?

- Long visits
- Regular follow-ups and persistence
- Broad focus on hypertension
- Focus on other cardiovascular risk factors

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Possible benefits?

- **Blood pressure measured according to guidelines**
  Of 110 patients 47% had well-controlled BP when measured according to protocol (Dean et al. Familly Practice; 2007).

- **Individual patient education – empowerment**

- **Doctors inertia less likely**
  6 times more likely to have their medicine adjusted compared to patients seeing doctors (Denver et al. Diabetes Care; 2003)
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Possible benefits?

- **Focus on promoting compliance**
  No effect of nurse-led adherence support on medication adherence or blood pressure
  (Schroeder et al. Family practice. 2004)

- **Advanced home blood pressure monitoring**
  19.03 mmHg in nurse-led teleconsultation group vs. -7.97 without teleconsultations
  (Chiu et. Al. Int. J. of nursing studies. 2010)
Nurse-led clinics for hypertension

How can it be delivered? A local example
How can it be delivered?

A local example

Education of nurses working in the hypertension clinic:

- Experienced cardiovascular nurses
- 20 hours training by senior consultants in the division of cardiology
- Topics included: Hypertension pathophysiology, epidemiology, antihypertensive treatment and non pharmacological treatment

Andersen et al. Blood Pressure. 2010
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How can it be delivered? A local example

- Patients with inadequately controlled hypertension
- Examination programme and medical plan by doctor
- First nurse scheduled visit is 60 min, following visits 30 min
- Relatives invited to participate

Andersen et al. Blood Pressure. 2010
Nurse-led clinics for hypertension

How can it be delivered? A local example

- Patient’s history with hypertension and treatment
- Correct blood pressure measurement – clinic and home
- Initiating patient education
- Risk assessment

Andersen et al. Blood Pressure. 2010
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How can it be delivered? A local example

- Teacher – patient education:
  - What is blood pressure
  - The dangers of high blood pressure
  - How the medicine works
  - Side effects

- Motivate changes in life style

- Compliance

Andersen et al. Blood Pressure. 2010
Nurse-led clinics for hypertension
How can it be delivered? A local example

<table>
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<th>Risk factors</th>
<th>&quot;High normal&quot; SB: 130-139</th>
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</table>
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How can it be delivered? A local example

- Non-pharmacologic treatment
- Stepwise increments in antihypertensive treatment algorithm
- Special plan by cardiologist

Andersen et al. Blood Pressure. 2010
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How can it be delivered? A local example
Nurse-led clinics for hypertension

How can it be delivered? A local example

Andersen et al. Blood Pressure. 2010

NUMBERS AF ANTI-HYPERTENSIVES
Nurse-led clinics for hypertension

How can it be delivered? A local example

- Patients attend the clinic until target blood pressure is reached
- Final measurement based on home- or 24 hour BP measurements
- 95% of the patients achieved target BP
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How can it be delivered? A local example

Andersen et al. Blood Pressure. 2010
Thank you

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- Collaborators;
  - Andersen, Ulla; Helms, Christine; Tobiasen, Minja; Ibsen, Hans. Hypertension clinic, Holbaek hospital.