



Part of the team

**Clinical Pharmacy and interprofessional collaboration in
healthcare centres in the Uppsala region**

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No conflicts of interest

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Key learning outcomes

- **Structure and scope of collaborative clinical pharmacy services in primary healthcare settings**
- **Evaluate a case study**

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Sweden

~10 million people



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Region Uppsala

~400 000 residents

Public healthcare:

2 hospitals

28 healthcare centres

**Contract with 26 private
healthcare centres**



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Clinical Pharmacy in Primary care

- **Since 2006**
- **14 pharmacists**
- **12 health care centres,
part time**
- **Referral inbox**
- **Collaboration with
municipal nursing homes**



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Medical records in Uppsala region

Hospital and primary care share medical records system since 2010

Digital referral system

Messaging system within the medical records

Municipal nurses can see certain data in the medical records



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Multidose drug dispensed medication

**Automated medication dispensing system
~20 % of Uppsala residents**

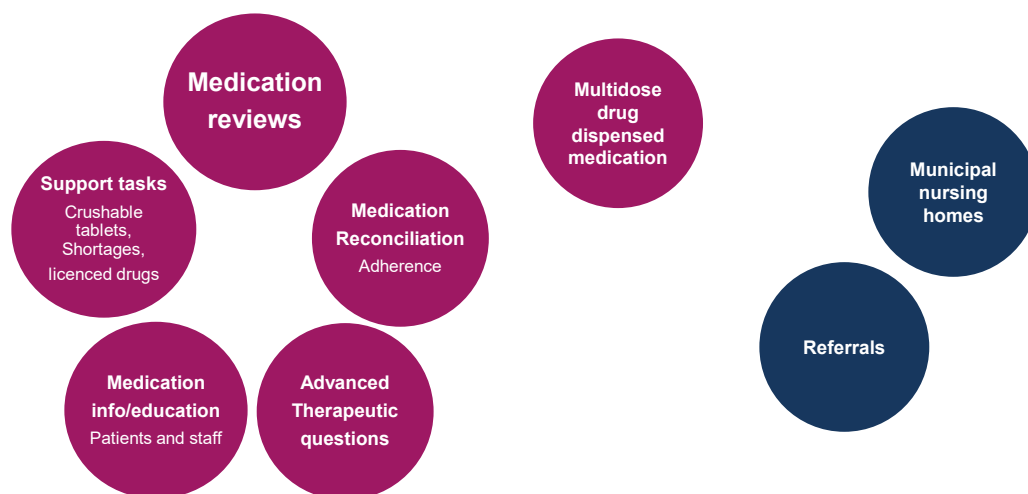
Purpose: increase patient safety
+ Clear dosing
+ Prescribing tool visible for healthcare personnel in Region and Municipality

Risks:
- Differing computers systems
- Requires medication reconciliations



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Tasks in primary care



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ÄVE – Elderly care unit (1/2)

- Regional "healthcare centre" for our most fragile citizens
- Doctors, nutritionist, speech and language therapist, welfare counsellor and pharmacists
- Collaboration with home healthcare nurses
- Only home visits



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ÄVE (2/2)

- No home visits by pharmacists
- Comprehensive medication reviews:
Assessment visits and yearly check-ups
- Phase-20 / Phase-proxy



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PHASE-20

PHARmacotherapeutical Symptom Evaluation, 20 questions

- Identify possible drug related symptoms in elderly people.
- Phase-proxy adapted to patients who are unable to assess themselves

Version for use in nursing homes, optimized for print

PHASE-20 — rating scale for possible drug-related symptoms

Patient name		NHS number	N.I. number	Date
Diagnoses				
The patient has completed the document: <input type="checkbox"/> Independently <input type="checkbox"/> With some support Carers signature:				
The patient is: <input type="checkbox"/> Mobile <input type="checkbox"/> Chairbound <input type="checkbox"/> Bedbound				
Height:	Weight:	BP sitting:	Pulse:	S-Creatinine:
Date:	Date:	BP standing:	Date:	Date:
Date:	Date:	Date:	Date:	Date:
Tick the box next to the option that best describes the patient's symptoms during the last two weeks. Circle the symptoms that are particularly dominant and cross out those that are not applicable. Please leave clarifying comments in the margin as necessary.				
	No problem	Minor problem	Moderate problem	Severe problem
1. Dizziness/leaky/high risk of falls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Tired/exhausted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Poor sleep/pattern/rhythm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Abdominal/pain/chest pain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Headache	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments				

Hedström, M *et al.* (2009). PHASE-20: ett nytt instrument för skattning av möjliga läkemedelsrelaterade symtom hos äldre personer i äldreboende. *Nordic Journal of Nursing Research and Clinical Studies (Vård i Norden)*; 4:9-14.

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Enköpings Husläkarcentrum (1/2)

Healthcare centre

- Child health centre
- Youth guidance centre
- Midwifery clinic/maternity centre
- Elderly care centre
- Homeless people care centre

After hours surgery – urgent care

Rural branch

39 coworkers

~ 9000 listed patients



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Enköpings Husläkarcentrum (2/2)

Main focus:

- **Medication reviews**
 - before doctor appointments
 - before initiation of MDD*
 - Suspected non-adherence
- **Inhaler technique, follow-ups etc.**

*MDD = multidose drug dispensed medication



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Medication error – case study

85 year old man, lives with his wife. Wife in charge of medication. Calls in to healthcare centre.

Presenting complaint: Dizziness since a couple of weeks

**Other symptoms: forgetful, "not himself", fall tendency
Constipation, dry mouth.**

Nurse books a doctors's appointment and a medication review with pharmacist.



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**Diagnoses: Hypertension, ischemic heart disease,
atrial fibrillation, previous ischemic stroke, hip replacement april-25**

Medication list:

- Metoprolol depot 50 mg x1
- Enalapril 10 mg x1
- Atorvastatin 20 mg x1
- Apixaban 5 mg x2
- Oxycodone depot 5 mg x2,
- Paracetamol 1g x3.

As needed:

- Oxycodone 5 mg
- nitro-spray

Discussion with patient and wife:

- Generally adherent
- Confused
- No need for oxycodone short-acting
- No OTC drugs
- Used nitro spray a few times recently

Started chewing tablets recently,
some tablets are too large

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Recommendations/suggestions:

- Switch metoprolol depot 50 mg to bisoprolol tablet 2,5 mg
- Indication Oxycodone? Possible to start tapering? Can swallow whole with yoghurt. Buprenorphine patch could be an alternative.
- Osmotic laxatives due to opioid related constipation
- Orthostatic blood pressure?

Results:

- Metoprolol was switched to bisoprolol
- Oxycodone depot tapered to x1
- Osmotic laxatives prescribed
- Recommended for elderly care centre
- MMSE with nurse was planned in a few weeks time



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Thank you!



Questions?



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Community care services in the Uppsala region



-  Regional healthcare
 Municipal healthcare
 * GP employed by primary healthcare centres and assigned to nursing homes
 ** GP employed by primary healthcare centres

Adapted from Cam, H. (2025) From exploration to intervention: Enhancing medication communication at hospital discharge. Dissertation. Uppsala University, Uppsala

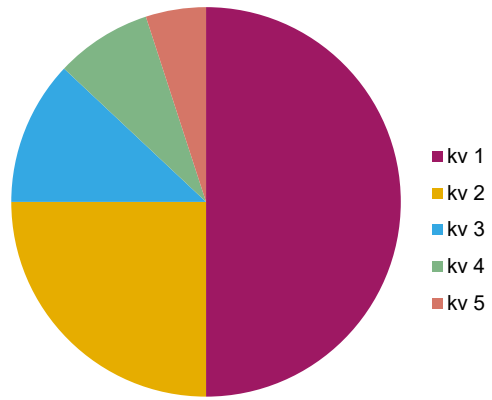
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