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To prescribe or not to prescribe that is the question – part I

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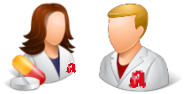
Conflict of interest: Nothing to disclose

Learning objectives



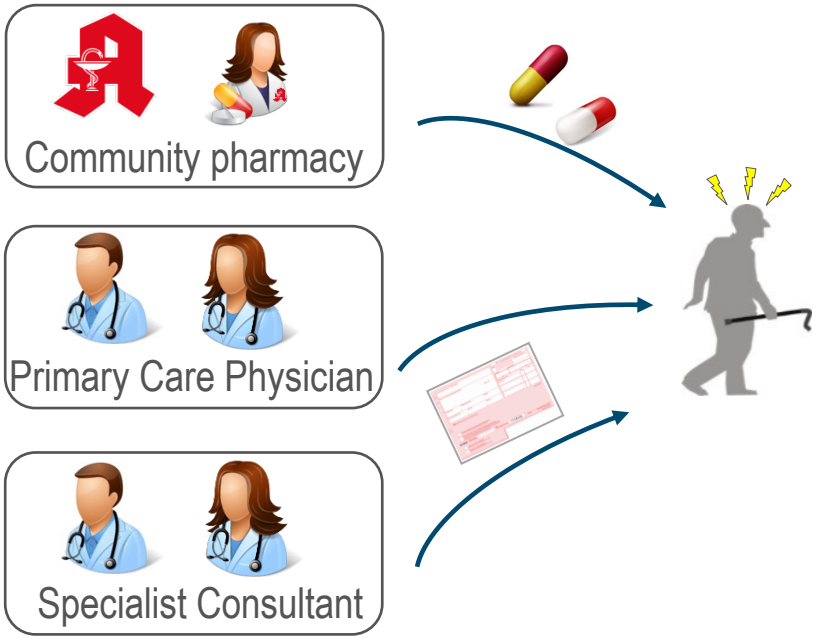
Strategies to deliver clinical pharmacy services without the possibility of pharmacist prescribing

How are clinical pharmacy services and the respective processes designed in these settings

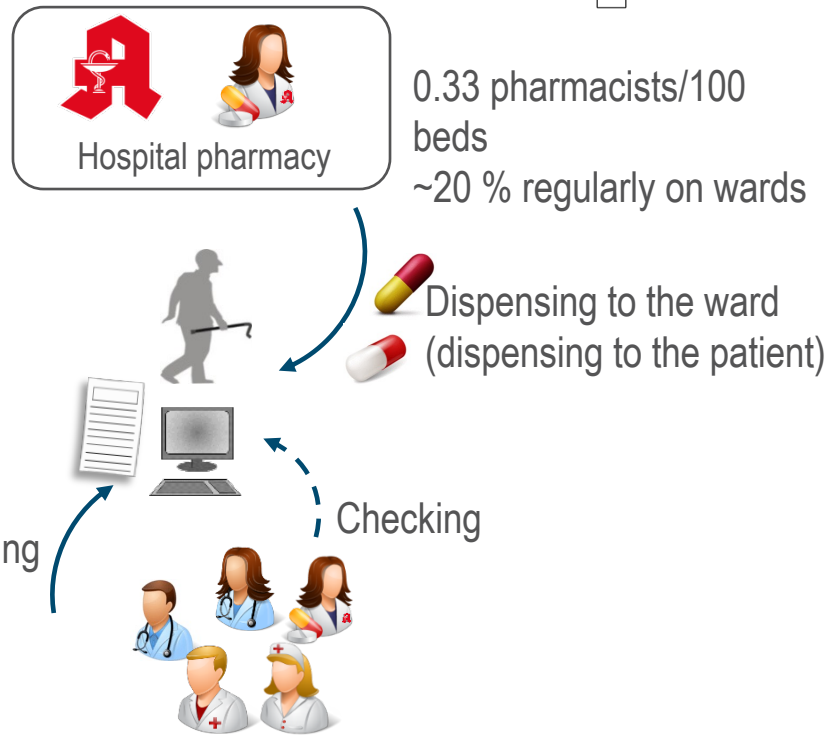
What has facilitated the implementation of such processes

Setting and context - German system

Primary care



Secondary care



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Setting and context - evidence

Medication harm

Around 16 % of patients experience an adverse drug event (ADE) during hospitalisation
[Pharmacoepidemiol Drug Saf. 2012; 21(11):1139-54]

Between 12-26 % of the patients experience an ADE after patient discharge which in over 50 % of the cases are judged as preventable.
[Br J Clin Pharmacol. 2016; 82(6):1660-1673 | J Gen Intern Med. 2005; 20(4):317-23]

2/3 patients (n=187) have drug related problems (DRP) at admission or discharge in Germany.
[BMC Health Serv Res, 2015 13;15:197]

The DRP rate on a German ICU is reported to be around 14 %.
[Int J Clin Pharm. 2019; 41(5): 1184–1192]

Interventions

Hospital pharmacists can reduce ADE during the hospital stay.
[Arch Intern Med. 2006 8;166(9):955-64]

Hospital pharmacists can reduce drug-related readmissions and ER visits.
[Cochrane Database Syst Rev. 2016; 20;2:CD008986]

Medication histories performed by hospital pharmacists are more accurate
[Eur J Clin Pharmacol. 2012; 68(8):1191-9]

DRP rate on a German ICU could be significantly reduced by hospital pharmacist counseling.
[Int J Clin Pharm. 2019; 41(5): 1184–1192]

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The English setting

The German setting

How do we get the motorcycle to surf the wave?

https://giphy.com/gifs/evolutionboard-surf-longboard-7E2t7t6VONzdLoTupb)
https://www.gutefrage.net/frage/motocross-strassenzulassung-machen-lassen

Process components

Medication review

- Taking medication history
- Medication reconciliation
- Patient chart checking
- Ward rounding
- Unit dose medication validation
- Preparation of discharge medication
- Preparation of patient medication schedule
- Patient counselling

Toolbox to design individual medication processes

Digital infrastructure

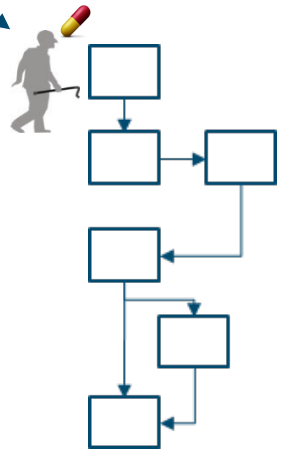
Staffing

Hospital size

Patient population

Cost

Individualize



Individual processes

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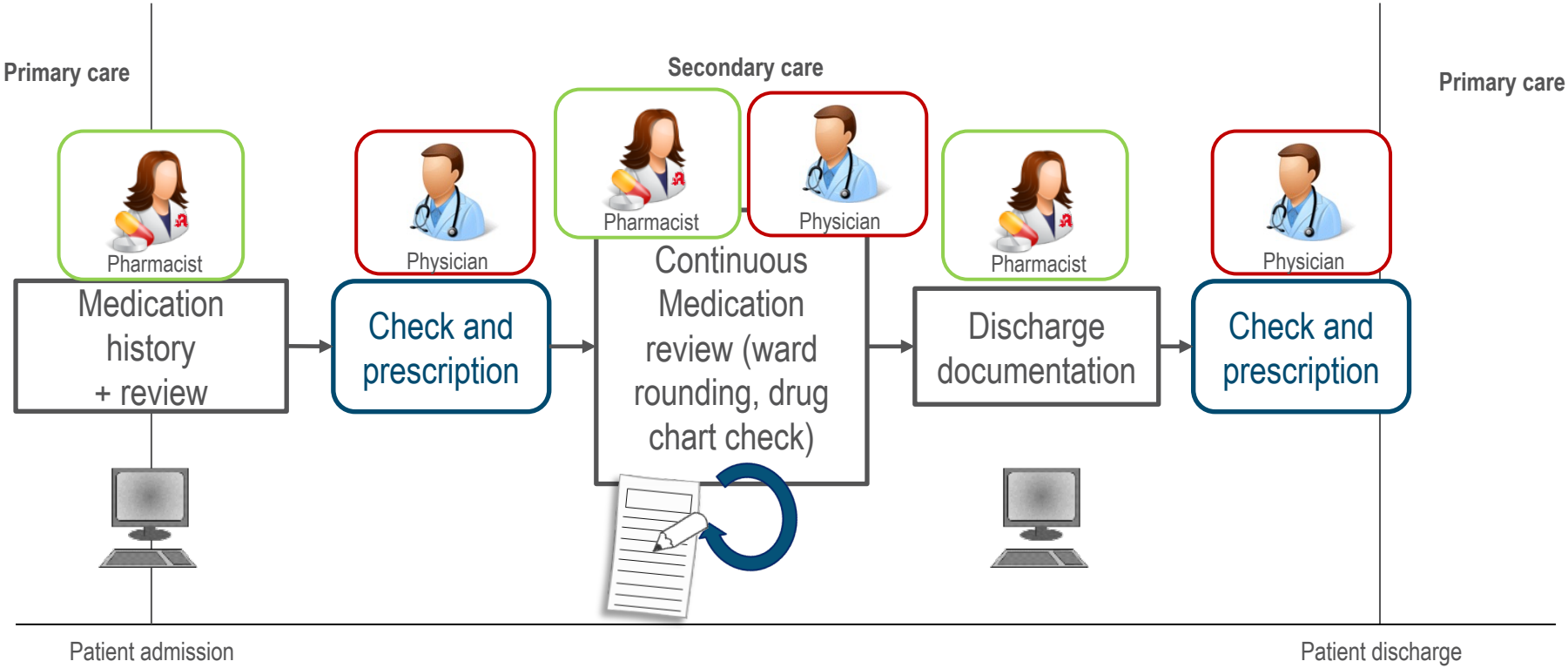
Medication process - semi digital/paperbased



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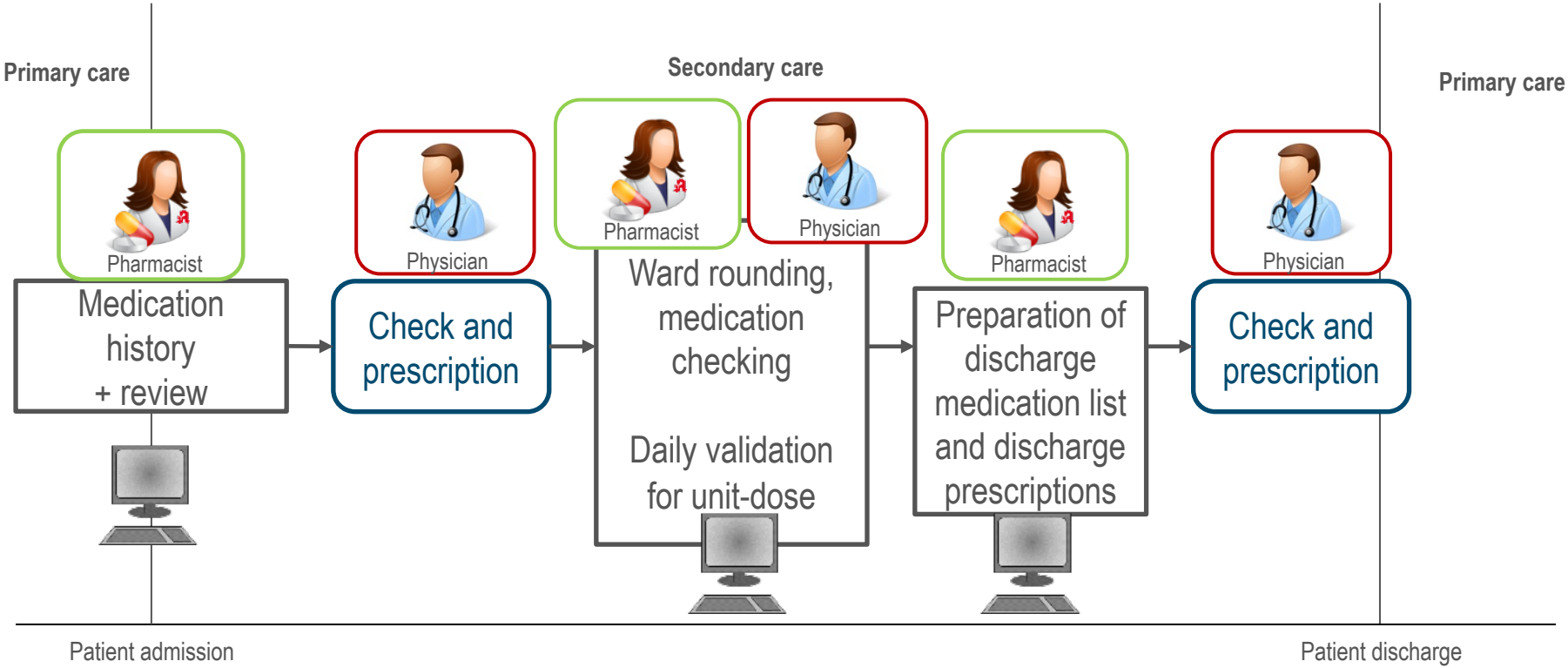
Medication process - digital



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Trigger events

https://commons.wikimedia.org/wiki/File:Nuclear_fission_chain_reaction.svg

Trigger events – group discussion ③

Incident/accident/'tragedy'	National | Regional | Local
Cost/budget analysis and consulting	Local
Law changes	National | Regional
Research/evidence	(National)| Regional | Local
Staff changes	Local
Quality improvement strategies	Local

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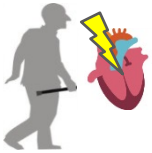
Trigger events – German examples

Crime/ tragedy

Niels H.

Nurse and serial killer



Cardiothoracic

ICU patients

322 cases investigated

Pled guilty for murder in 85 cases

New law in the state of Lower Saxonia specifies that ward pharmacists are mandatory from 2022 for every hospital

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Trigger events – German examples

Law changes

New law specifying discharge procedures in Germany:

- Discharge medication (including reasons for changes)
- Patient must receive a medication schedule
- Special discharge prescriptions can be issued

Staff changes

New consultant on cardiac surgery ward:

- Has worked before with clinical pharmacists
- Appreciates clinical pharmacists perspective
- Responsible for implementation of new discharge law

Additional workload for physicians

+

Positive change in the environment

Joint development of a new medication process with integrated pharmacists from admission to discharge conform with the legal requirements

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Quality improvement strategies

Roll out of unit dose process in order to improve dispensing of drugs

↓

Provision of unit dose process was coupled on a mandatory ward pharmacist

↓

Now there are around 29 pharmacists solely on the wards in this clinic

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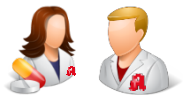
Int J Clin Pharm. 2019; 41(5): 1184–1192

Take home messages



It is possible to integrate comprehensive clinical pharmacy services in settings without the legal possibility of pharmacist prescribing.

A theoretical ‘toolbox‘could facilitate the development of new pharmacy services and medication processes which subsequently can be individualized to local setting factors

Often the implementation of new processes is secondary to ‚trigger events‘ or can be supported by these.

How do we get the motorcycle to surf the wave?

The German setting

https://www.gutefrage.net/frage/motocross-strassenzulassung-machen-lassen

Surfing with a motorcycle

https://www.youtube.com/watch?v=lDi9uFcD7XI

DC Shoes: Robbie Maddison's Pipe Dream