

## Background:

Hillerød Hospital is a mid size teaching hospital in the capitol region of Denmark with 49.105 discharges in 2010. The hospital has one emergency room/admission unit and has 19 wards where medication reconciliation (MR) is performed. Before this effort, MR was not routinely performed, putting patients at risk of receiving wrong or inadequately dosed medications during admissions and after discharges.

## Purpose:

The purpose of the task is to improve medication reconciliation (MR) at admission and discharge.

## Materials and Methods:

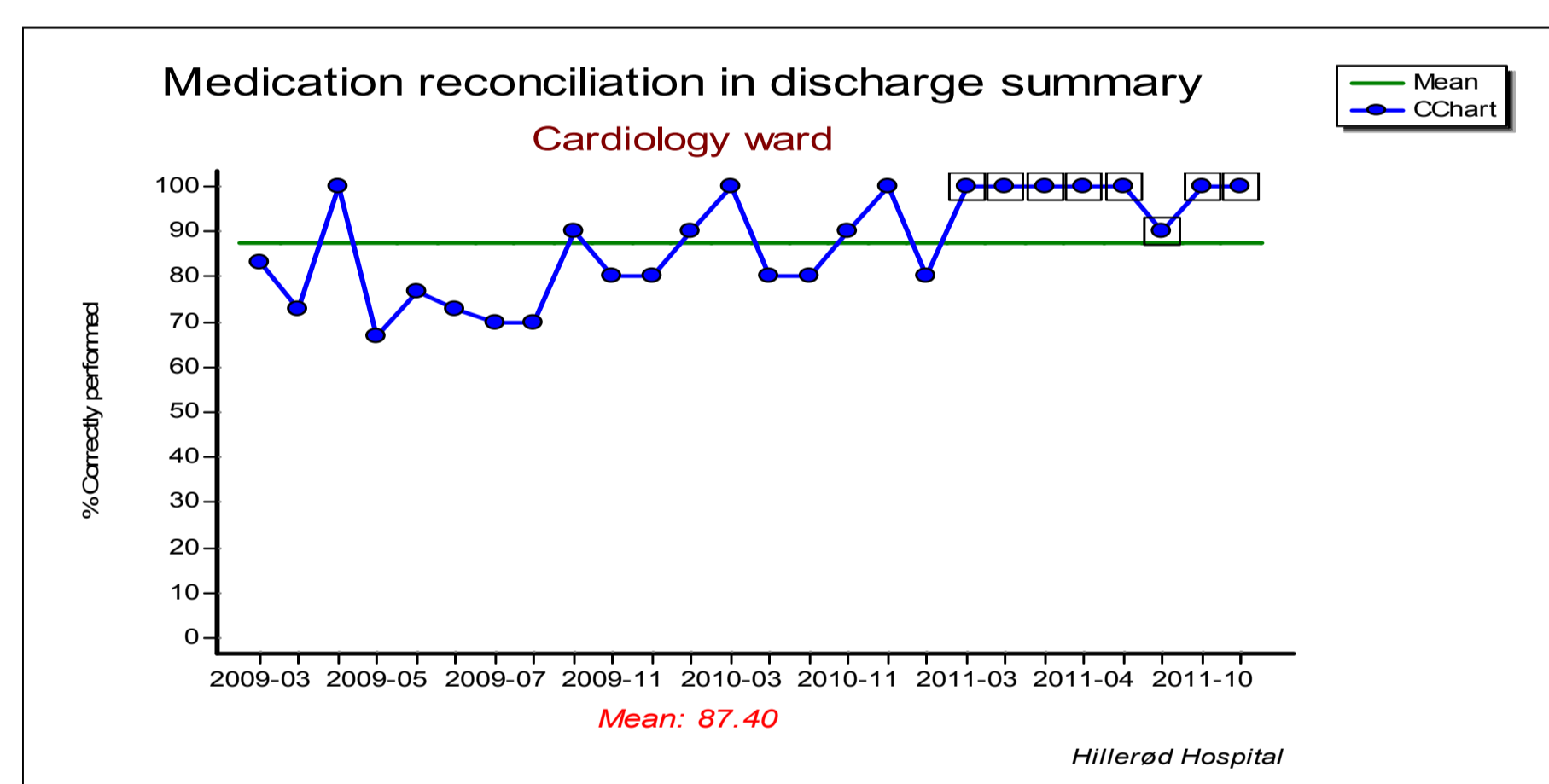
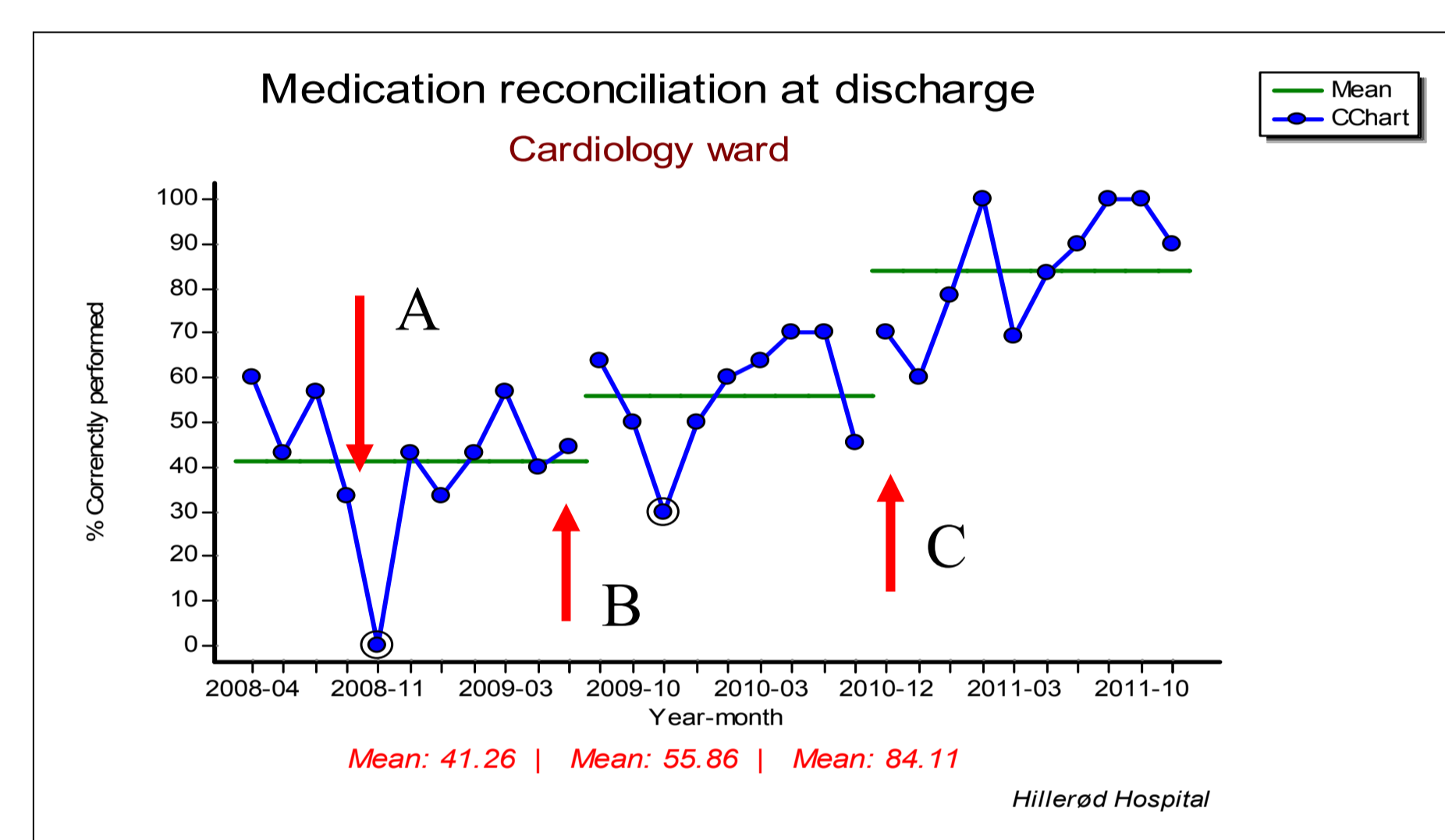
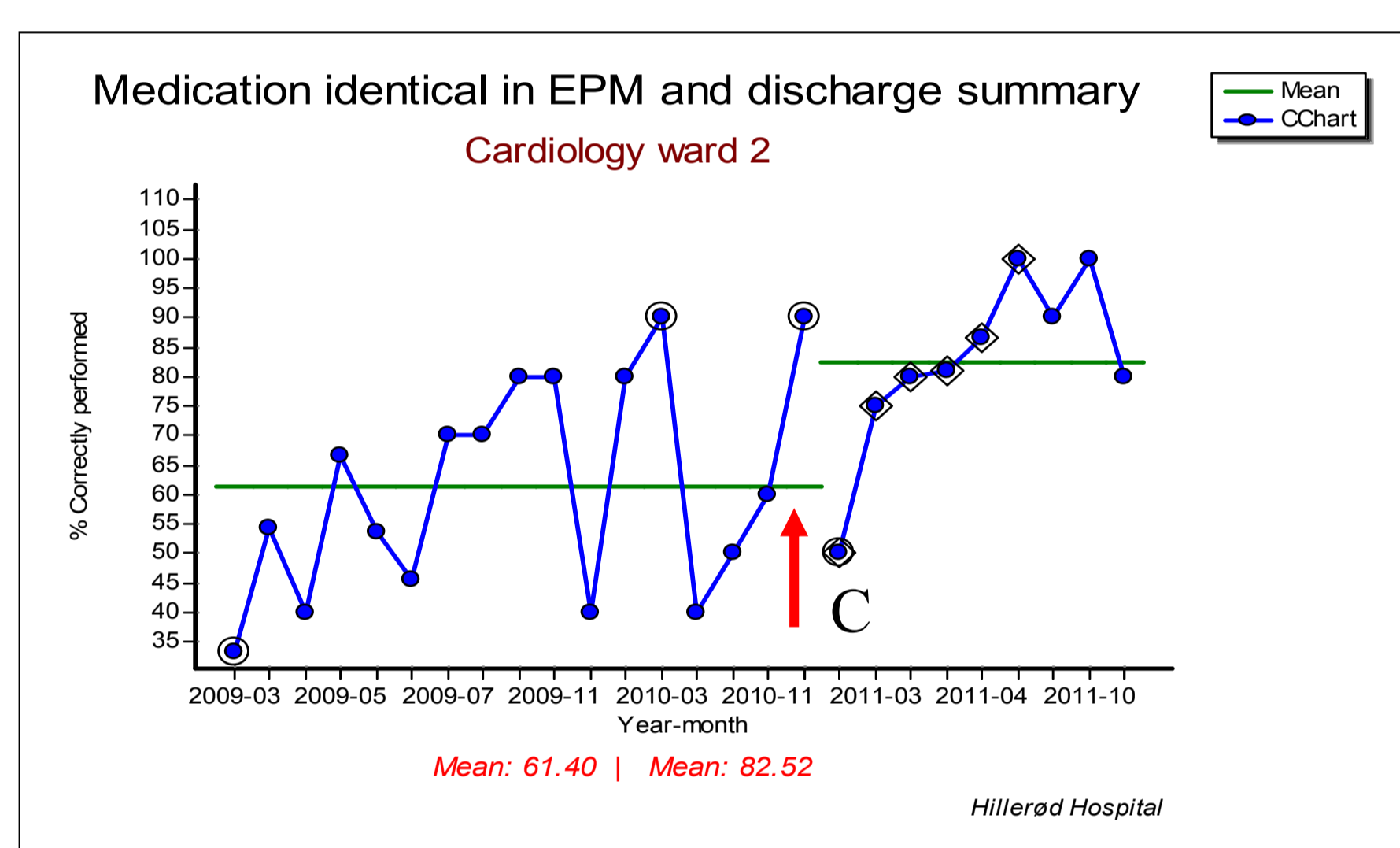
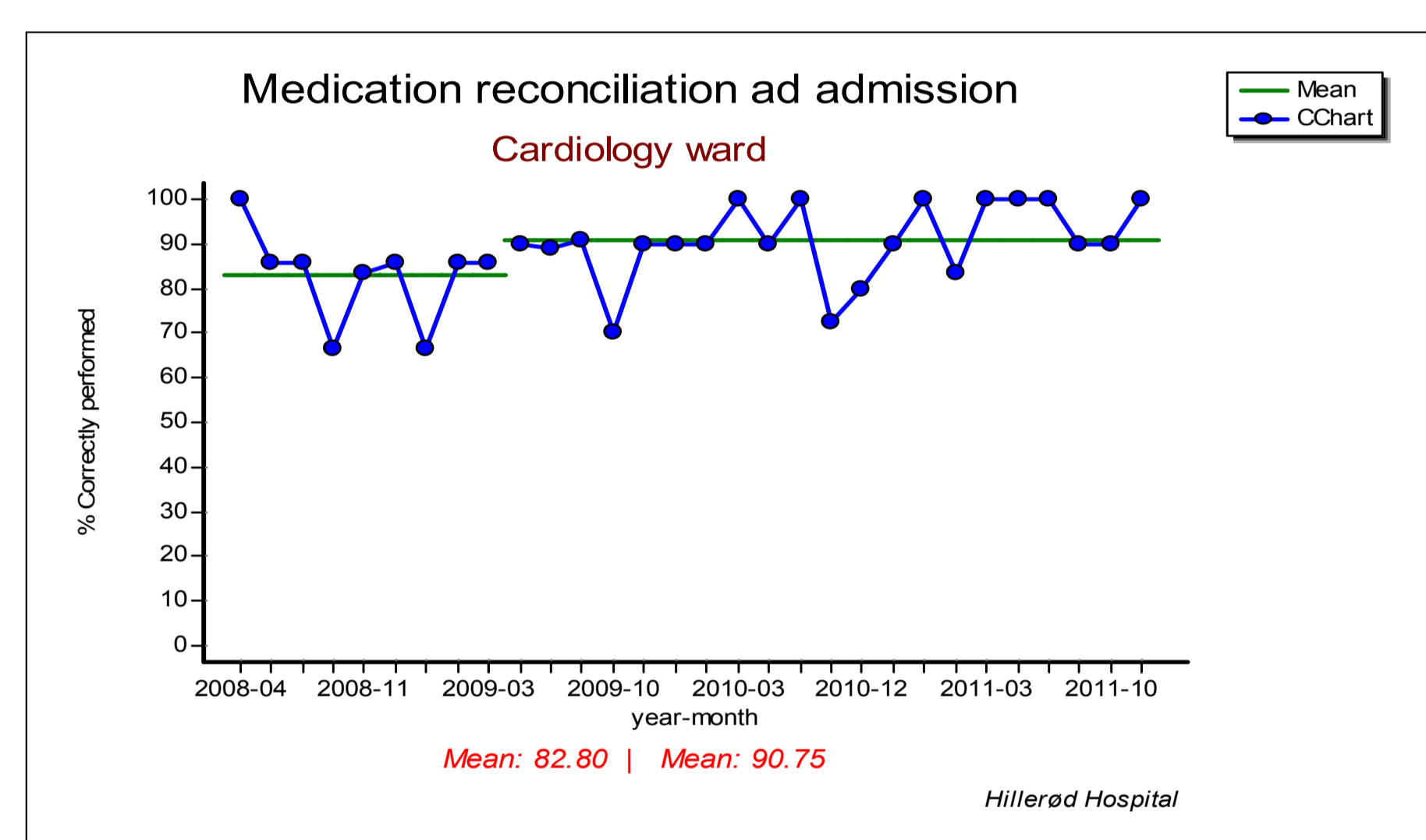
- A pharmacist together with a physician or nurse audited 10 files monthly for up to 10 clinical units. Variables (yes/no) were:
  - MR at admission
  - List of medications in admission note
  - All medications registered in the electronic medication system
  - MR at discharge
  - MR in discharge summary
  - Identical list in electronic medication system and discharge summary
  - Data were registered in a spreadsheets

We calculated the percentage of patients with MR at admission and discharge for each unit. Results were aggregated for the whole hospital. All data were plotted as run charts for MR at admission and at discharge for each variable.

## Results:

MR at admission increased from 60% to up to 90%, on some wards to 100% during 2008-11. MR at discharge increased from 20% to 80%. We find large variations by ward of MR at discharge (5 to 100 %).

## Example of run charts:



A: The medical agent of change gets another job.

Between A and B:

The pharmacist is the only one to teach and perform audits on medication reconciliation.

B: Lægemedel komite går ind i arbejdet og kræver at afdelingsledelserne bakker op omkring processen. Den ledende overlæge begynder selv at udfører MS. Ny afdelingslæge bliver kontaktperson, han forankre MS på afdelingsniveau.

C: Patientsikkert sygehus forankres. Hospitalets direktion bakker synligt op omkring processen, MS bliver italesat og der er nu opbakning fra afdelingsledelserne hvilket fremmer processen med at ændre kultur til at udfører medicinafstemning.

Vores erfaring er, at følgende skal være tilstede for, at implementerer forandringen "medicin afstemning" (MS).

- En gennemgående person på hele hospitalet, her farmaceuten, der udfører audit så "bedst praksis" spredes (de gode ideer spredes).
- Der skal være en ankerperson (indpisker) på det enkelte afsnit, helst en overlæge, men kvalitetsansvar
- Der skal være vedvarende feedback fra den person der auditerer, til de enkelte team på afdelingerne samt ledelsen
- Den lægelige "indpisker" skal kontinuerligt give kollegaer feedback, være vedvarende og fastholde processen. Skal sige "vi skal MS".
- Det er hele teamet omkring patienten der skal være med. Sygeplejerskerne skal også være med i processen, så de kan huske lægerne på at "har du husket MS" før patienterne udskrives. Fordelen er at der kommer færre tidskrævende henvendelser fra primærsektor pga. mangler i medicininformationer ved sektorovergang.
- Der skal være ledelsesopbakning—uden dette lykkedes alt det andet ikke.

## Conclusions:

It is possible to implement medication reconciliation at admission and discharge because of the positive forces for change in our organization. Most important is a committed change agent (Nina Grüner), interdisciplinary teamwork and the availability of high quality data and support from leaders in the later phase of the project. Well even higher reliability of medication reconciliation requires deeper integration of process routines in the clinical units through small scale testing.

## Acknowledgements: