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A Regional Medication Management Service:

A randomised controlled trial

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Acknowledgements

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Focus

Improving quality and safety of medicines along the continuum of care for patients transferring for the first time to a residential care facility from the acute care setting

Background

- 2 adverse drug events (ADEs) per 100 resident months among residents of 18 nursing homes

- approximately 50% of ADEs preventable

(TS Field, JH Gurwitz, J Avorn et al, 2001)

Risk factors for ADEs in nursing homes

- Being a new resident - almost 3 times more likely to experience an ADE
- Having a score of 5 or higher on the Charlson Comorbidity index - 2.5 times more likely to experience an ADE
- Multiple medications
- Particular drug groups - opiates, antipsychotics, anti-infectives.

(TS Field, JH Gurwitz, J Avorn et al, 2001)

Previous Interventions

Residential Care Facility Setting (RCF)

- Clinical pharmacist medication chart review reduced number of medications taken (Bonner and Roberts, 1994)
- Case conferencing in RCFs improved medication appropriateness scores (Crotty et al, 2000)

Acute Care Setting

- Medication Management Services demonstrated improvements in rates of readmission, medication related problems and QOL
  (Stewart et al, 1997, Stowasser et al, 1998, Spurling et al, 2000)

Aim

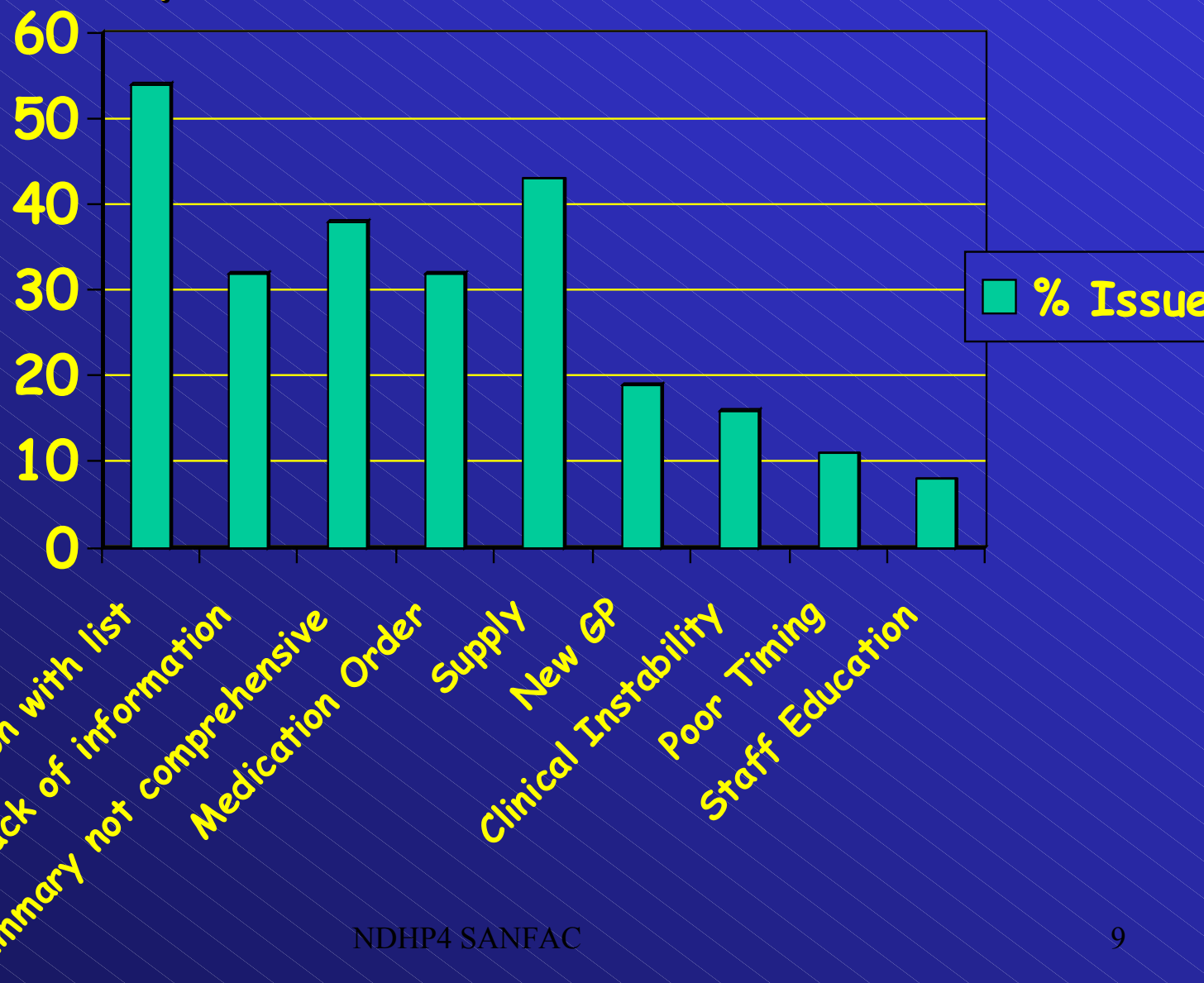
- To improve the quality and timeliness in transferring medication-related communication between acute and residential care settings

Visits covering 90 RCFs in the South

Determined:

- Consent to participate in the study
- Medication related problems in transferring new residents to residential care from hospitals

Medication Problems in Transfer from Hospital to RCF (n=60 visits)



Recruitment

- Flinders Medical Centre (FMC), a 430 bed acute care public teaching hospital
- Repatriation General Hospital (RGH), a 270 bed acute care repatriation teaching hospital
- Noarlunga Health Service (NHS), a 100 bed acute care public hospital

Ageing Population

At Flinders Medical Centre

- 75% public emergency admissions for the south
- ED: > 65yrs 18% increase since'95
  12% increase in new patients
  47% increase in occupied bed days
- 'Longer stays' (5% patients use 28% bed days)
  - Median LOS - 22 days
  - Median age - 79.5 yrs
  - 31% of adverse events
  - 60% - immobility, dementia, delerium, incontinence, malnutrition, fall, CVA, CCMU

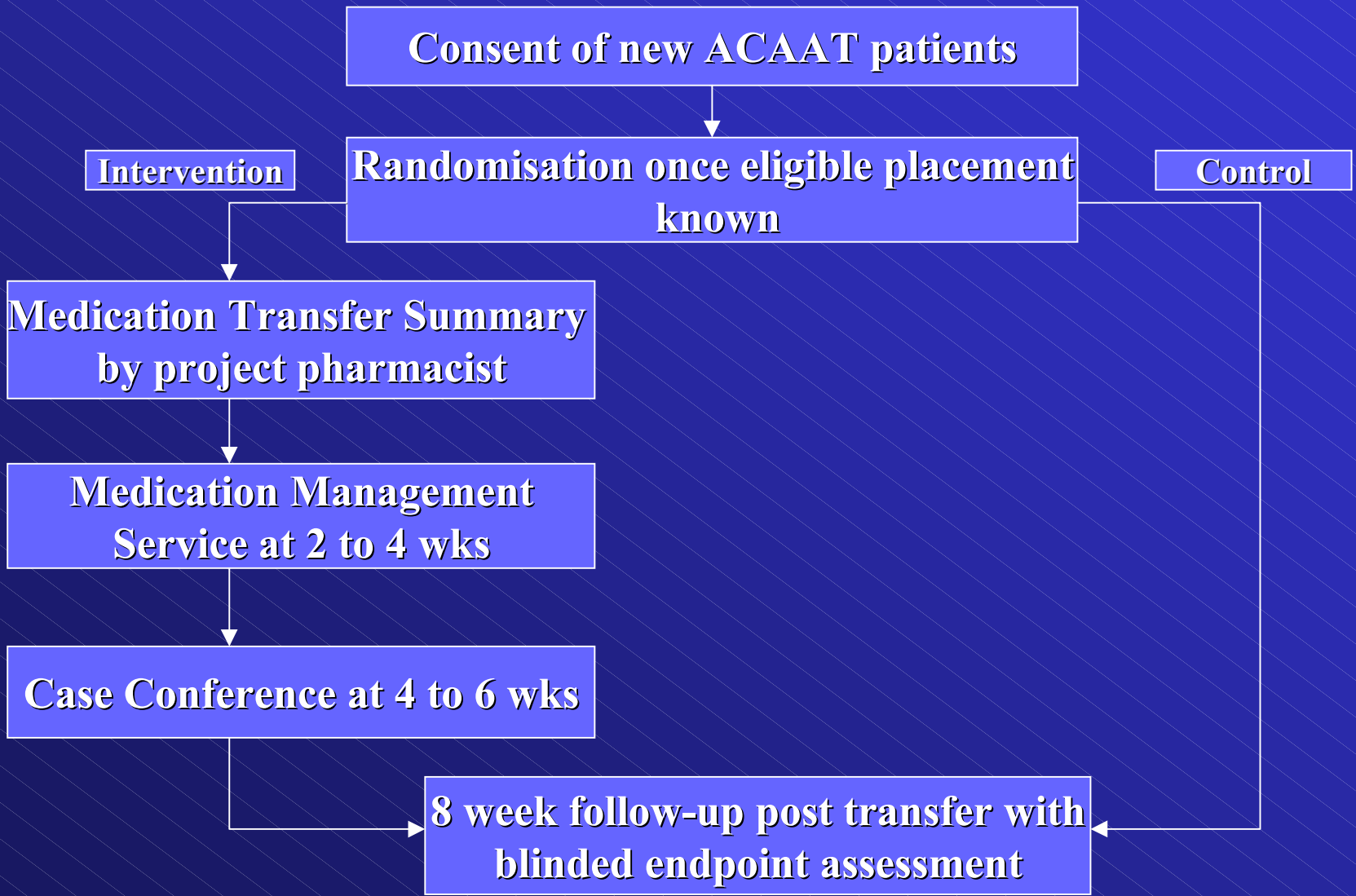
Recruitment

Eligibility

- New residents transferred for the first time to RCFs in the southern region from RGH, FMC and NHS, and
- Plan to reside in that Facility for the project follow-up period of 8 weeks.

Recruit 100 patients over 6 months

Methodology



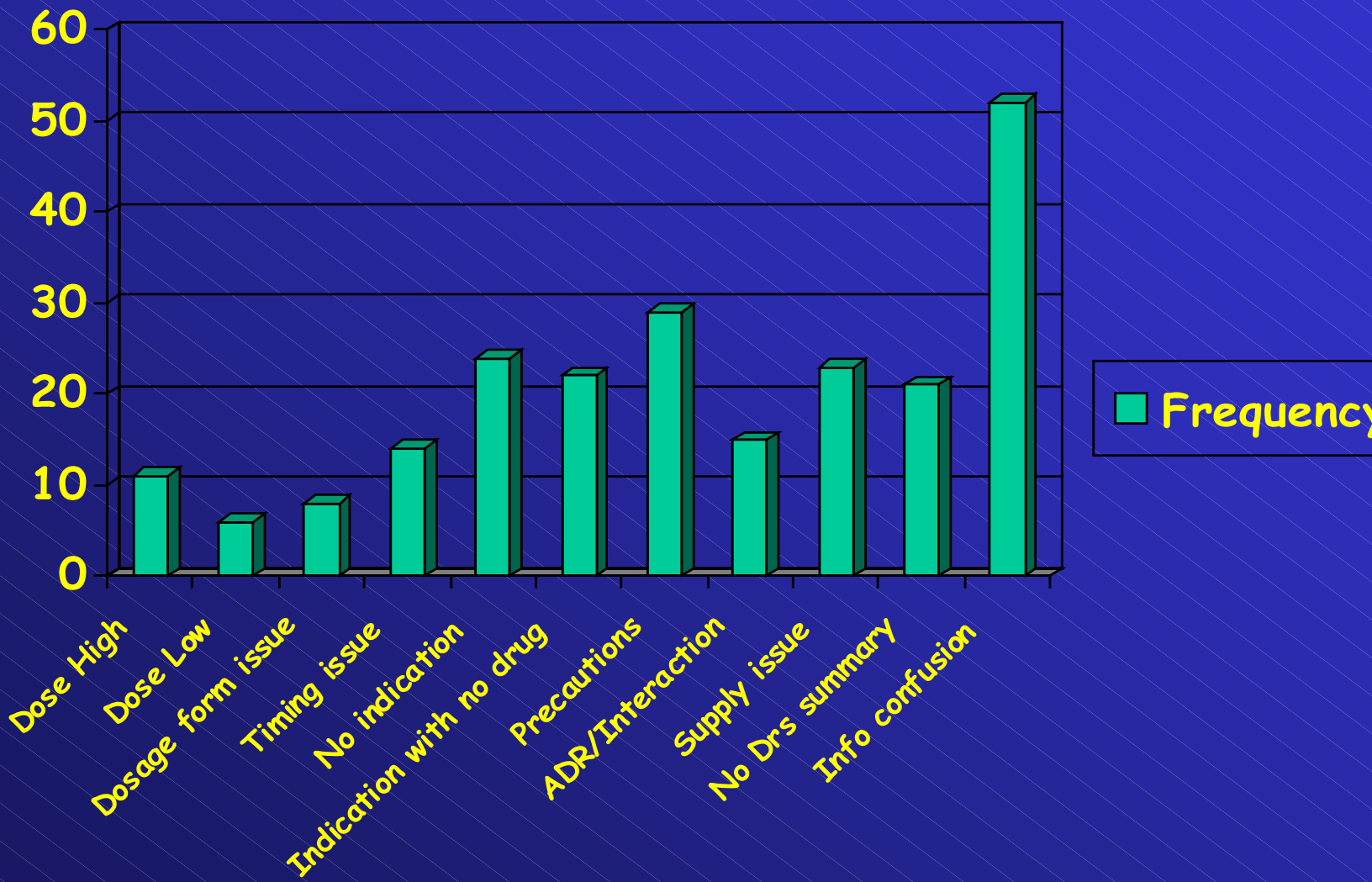
Results - Dec '02 - June'03

- 320 patients assessed for eligibility
  - 174 ineligible
  - 14 refused
  - 32 other reasons
- 100 patients recruited
  - 52 intervention patients
  - 48 control patients
  - FMC 42 pts, RGH 44 pts, NHS 14 pts
- Recruitment is continuing……..

Patient Demographics

		Control Group n = 48	Intervention Group n = 52	*p* value
Age (yrs)		83.75 ± 6.01	82.04 ± 6.69	0.183
Gender	female (%)	32 (66.7)	30 (57.8)	0.356
English speaking		45	48	0.778
LOS (days)		41.2 ± 29.43	55.4 ± 38.51	0.048
No. of preadmission medications		7.67 ± 4.12	6.62 ± 3.77	0.186
No. of discharge medications		8.77 ± 3.35	8.75 ± 3.35	0.975
No. of medications added to regimen		4.06 ± 2.35	4.15 ± 2.95	0.865
No. of changes to medication regimen		7.98 ± 3.78	7.06 ± 4.06	0.250
New GP (%)		38 (79)	32 (62)	0.055

Medication Problems Identified at discharge
(n = 100)



Conclusions

- Medication related issues that affect patient care across the Hospital - RCF interface:
  - timely transfer of medication information
  - communication of comprehensive medication management plans
  - quality assurance of medication related information
  - consideration of ongoing supply of medication in the community setting
  - ongoing medication orders in the RCF setting

Thankyou to the patients and their families

'Mrs AB, 88 yrs, a hairdresser all her life, who we have finally convinced that Ventolin nebules should not be used as curlers'.

'Mrs LC, 90 yrs, who broke her femur in Jan, the fracture will never heal and she will never be able to go home again, we continue to help her dye her hair natural warm brown'.

This presentation was given by Ms Lisa Spurling at the ARCHI toolkit seminar "Quality use of Medicines: Challenges for GP, Hospital and Community", held at the Stamford Plaza Hotel, Adelaide, 26-27 June 2003.