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Avoidable hospital admissions in people living with HIV: a service review

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Declaration of interests relating to this presentation

- **Statement of interests: None**

Background

- Good health outcomes and mortality rates in those living with HIV depend on maintaining engagement with treatment and care.
- Long term disengagement and lost to follow up (LTFU) is a global problem with a large cumulative effect.
- Studies in USA and Belgium reported nearly 1 in 5 of patients LTFU over an eight-year period (Rice et al, 2011, Schepens et al, 2010)
- LTFU is associated with preventable prolonged hospital admissions
- From a longitudinal study tracking 135 LTFU patients, ten were hospitalised with a median hospital stay of 23 days (Nydiaye et al, 2009).

Study context

- Sheffield Infectious diseases unit provides in-patient care for a South Yorkshire HIV cohort of approximately 1200
- HIV admissions were historically related to late diagnoses
- An increasing proportion of admissions among those with known diagnosis who had fallen out of care.

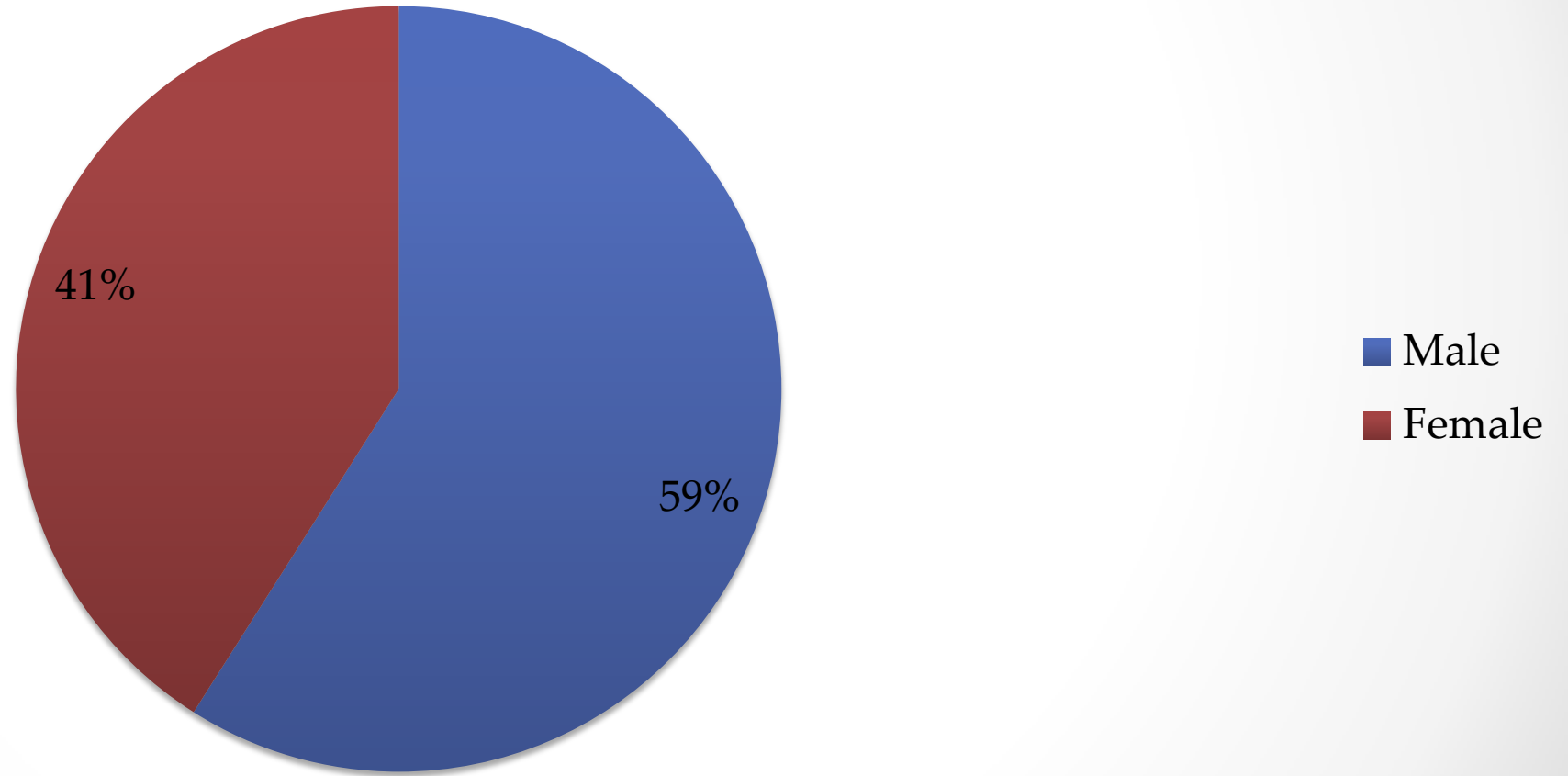
Aims

- To collect demographic and clinical information on HIV positive admissions to the Infectious Diseases department over a one year period (Oct 2015-16).
- Use the data collected to establish which admissions may have been preventable.

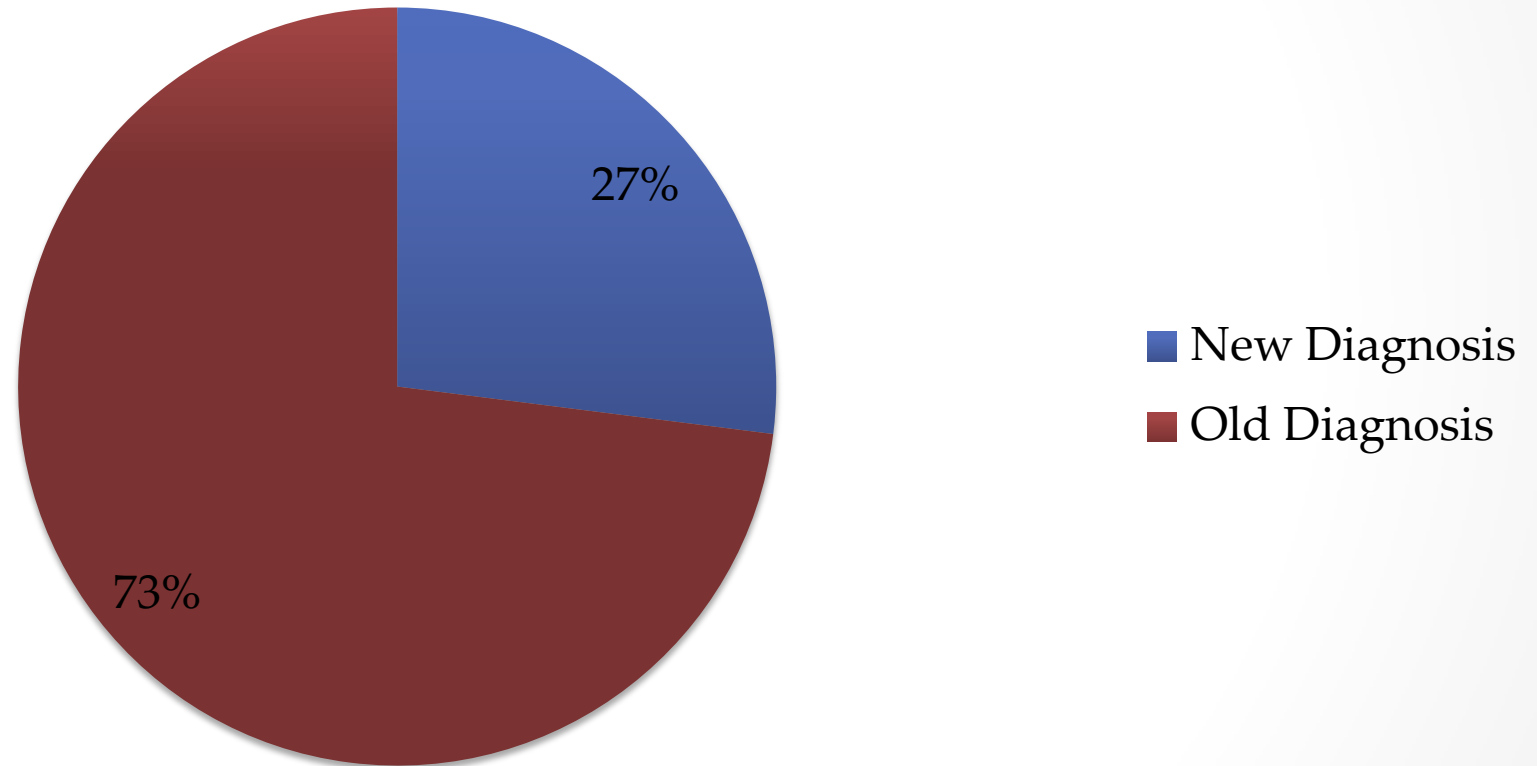
Total number of patients/ admissions

	Admissions	Patients
ID	46	31
GUM	20	10
Total	66 (58 to ID / 8 other dept)	41

Male/Female



HIV Diagnosis



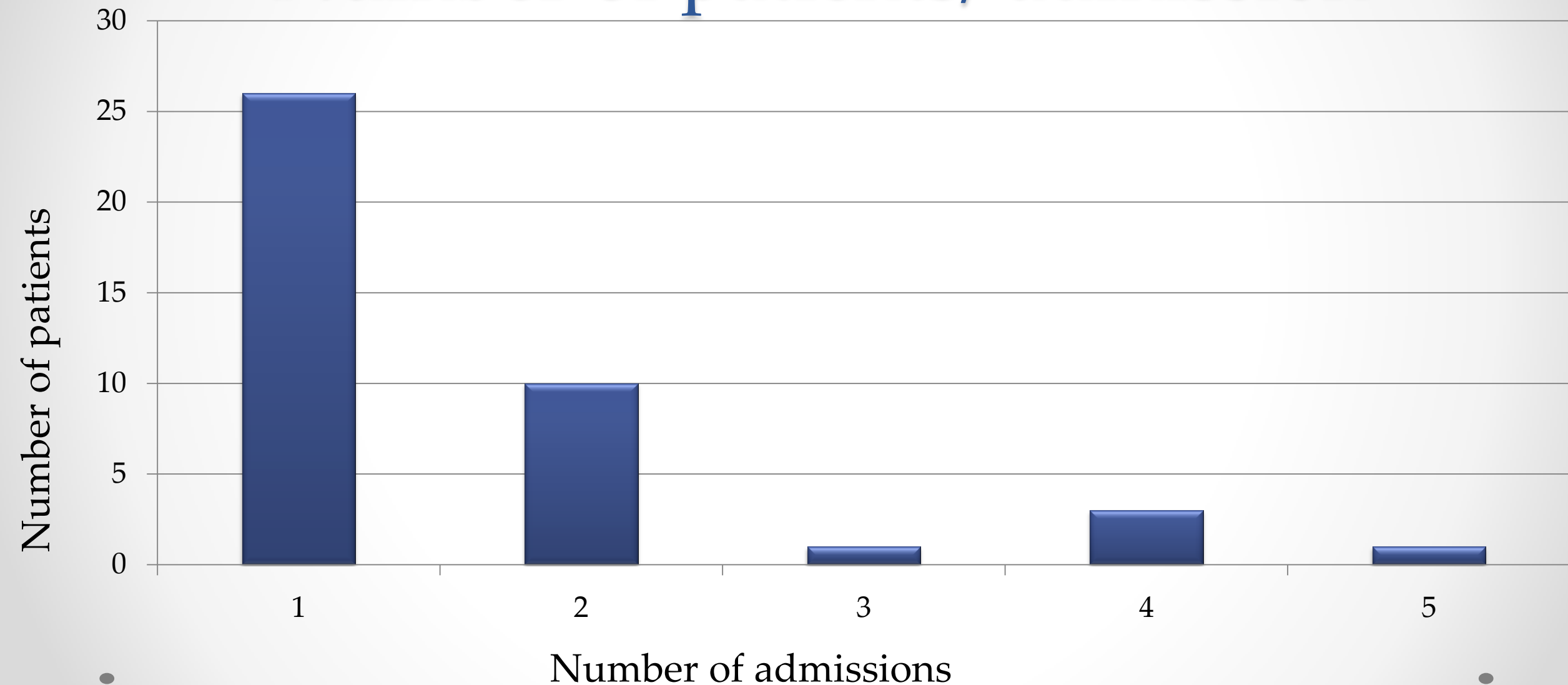
CD4 Count (cells/mm³)

<50	8(20 %)
51-200	11 (26%)
201-350	4 (10%)
351 +	18 (44%)

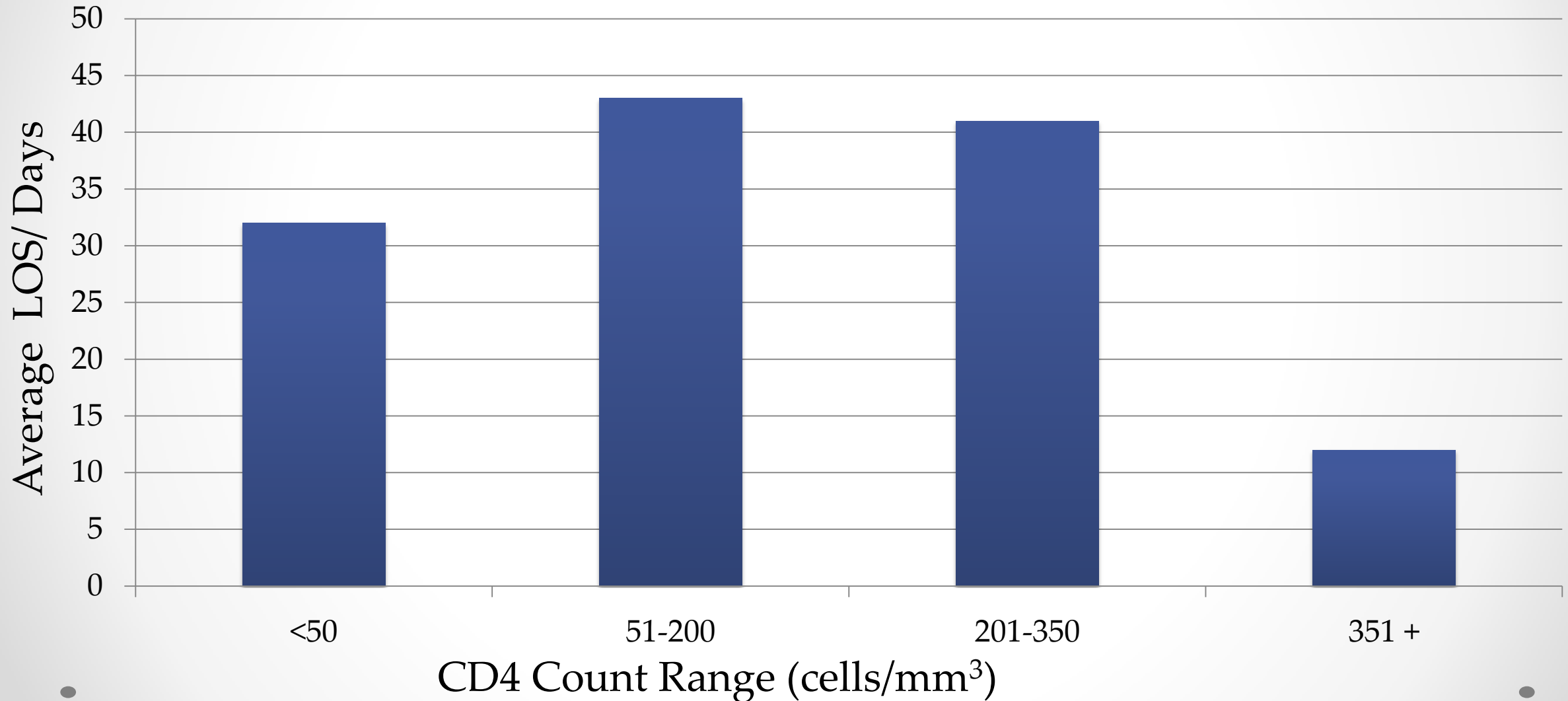
Viral Load (Copies/mL)

Undetectable	13 (32%)
<200	5 (12%)
>200	23 (56%)

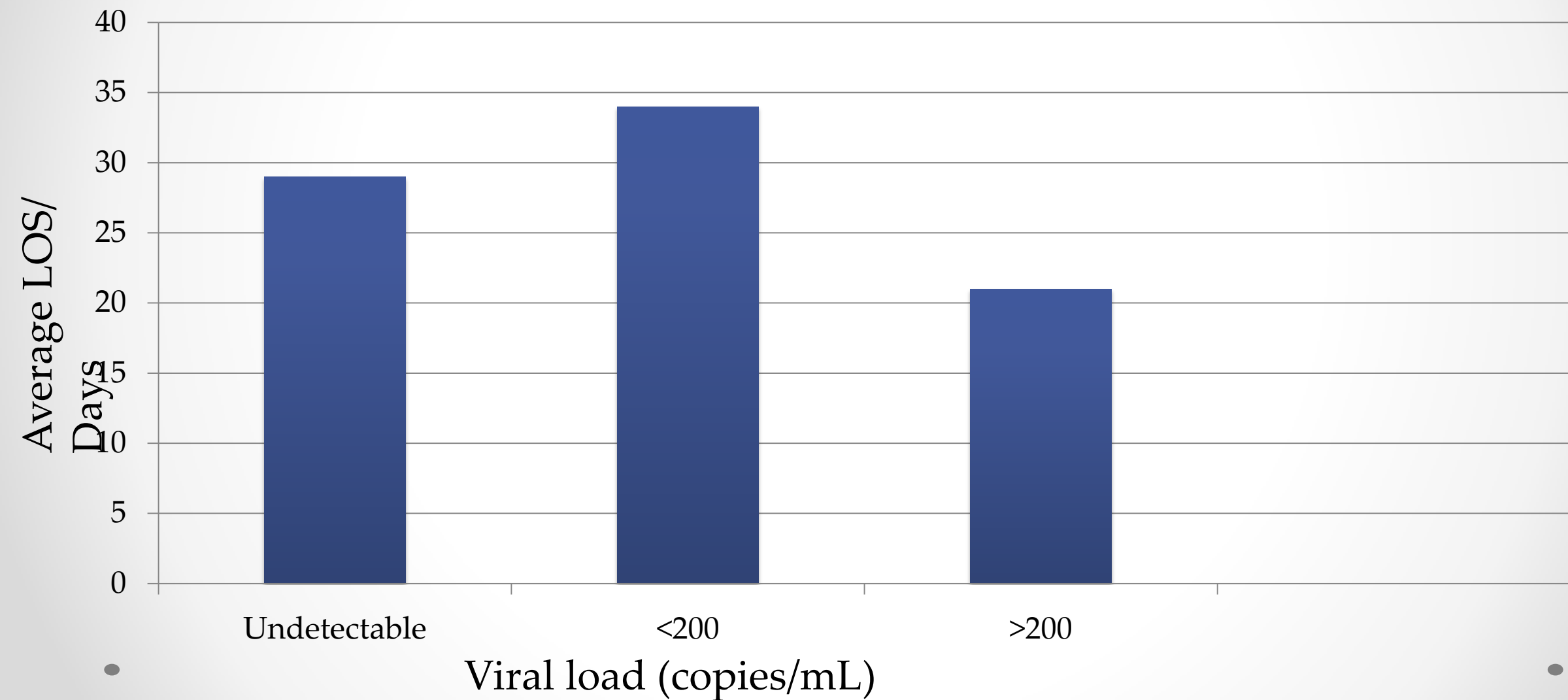
Number of patients/ admission



Average Length of stay (LOS) by CD4 Count



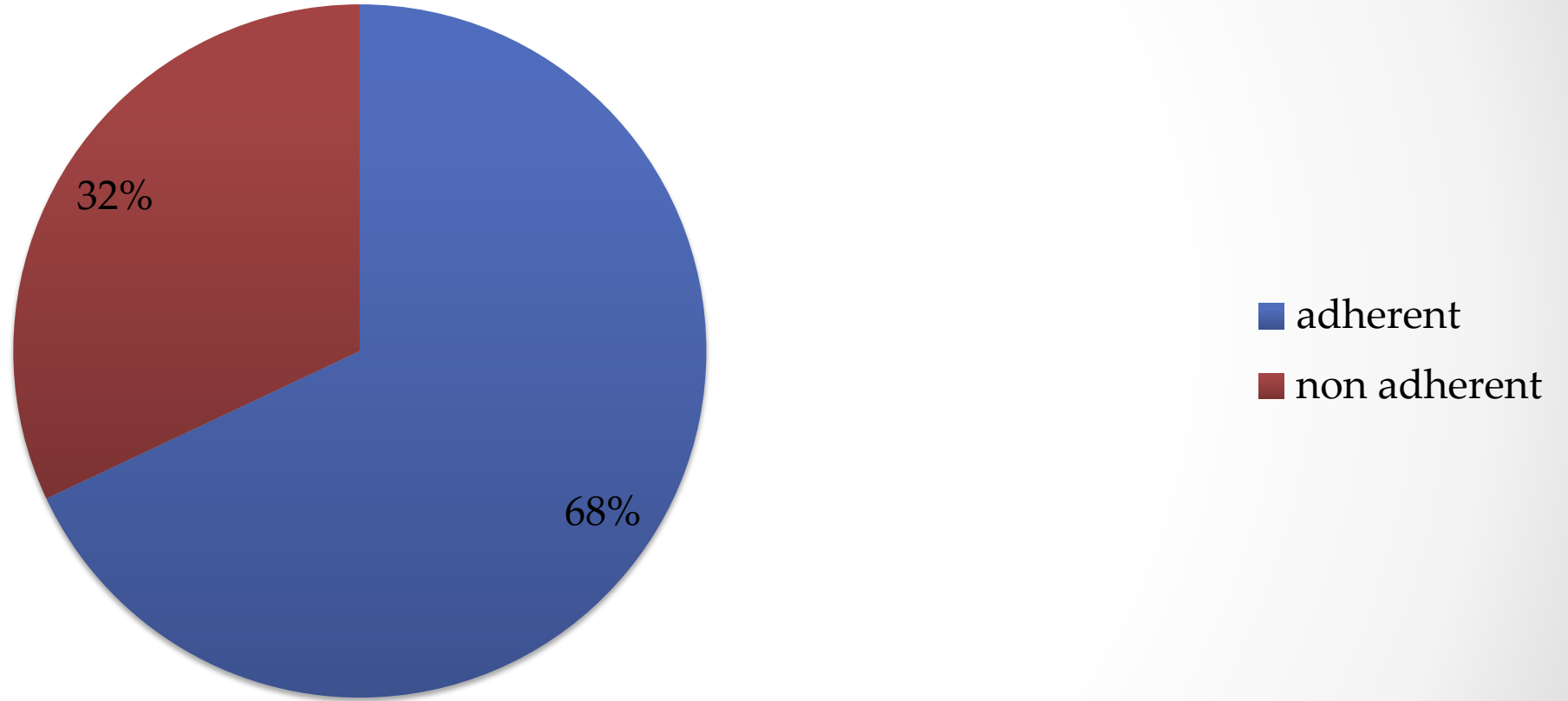
Average LOS by Viral load



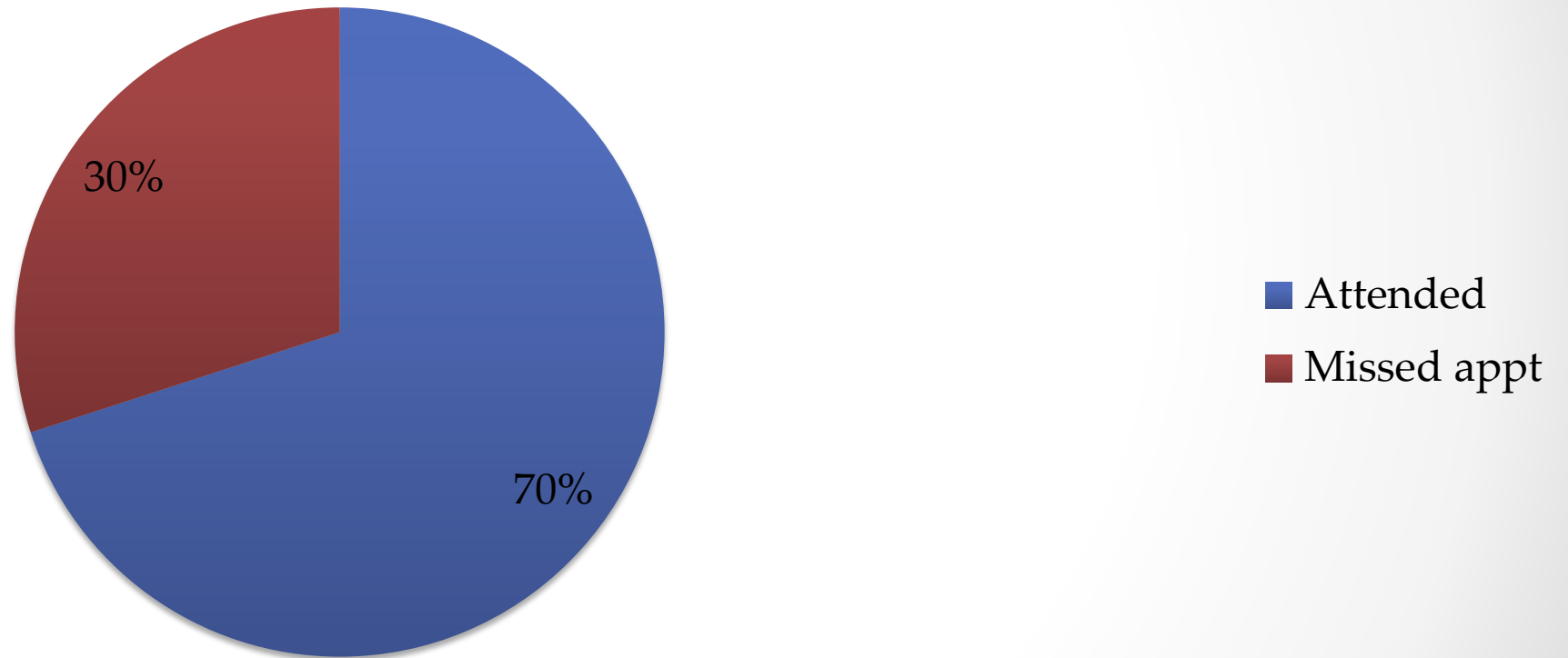
Diagnoses

Admissions	AIDS defining	Possible HIV Infection related	Seroconversion	Drug side effects (ART, TB)	Unrelated to HIV	Undiagnosed
Total (66)	13 (20%)	14 (21%)	1 (2%)	4 (6%)	32 (48%)	2 (3%)

Adherent with treatment



Attended HIV clinic during 6 months prior to admission



Preventable admissions

- 11 of 41 patients had preventable admissions (27%)
- 23% (15/66) of the admissions were deemed preventable
- All 15 preventable admissions were to the ID department

Preventable admissions

Preventable admissions

- Total length of stay = 532 days
- Average length of stay = 48 days/patient (n = 11)

Other admissions

- Total length of stay = 543 days
- Average length of stay = 18 days/patient (n = 30)

Conclusion

- There were 532 preventable bed days over a one year period
- Interventions that enable patients to stay engaged with treatment and care have the potential to offer benefits to the individual and costs savings to healthcare
- Developing such interventions and assessing their effectiveness will make an important contribution to evidence based HIV care.

References

- Ndiaye B, Ould-Kaci K, Salleron J, Bataille P, Bonnevie F, Cochonat K, et al. Characteristics of and outcomes in HIV-infected patients who return to care after loss to follow-up. *AIDS* 2009 Aug 24;23(13):1786-1789.
- Rice BD, Delpech VC, Chadborn TR, Elford J. Loss to follow-up among adults attending human immunodeficiency virus services in England, Wales, and Northern Ireland. *Sex Transm Dis* 2011 Aug;38(8):685-690.
- Schepens T, Morreel S, Florence E, Koole O, Colebunders R. Incidence and risk factors associated with lost to follow-up in a Belgian cohort of HIV-infected patients treated with highly active antiretroviral therapy. *Int J STD AIDS* 2010;21(11):765-769.