

17TH ANNUAL CONFERENCE OF THE
BRITISH HIV ASSOCIATION (BHIVA)

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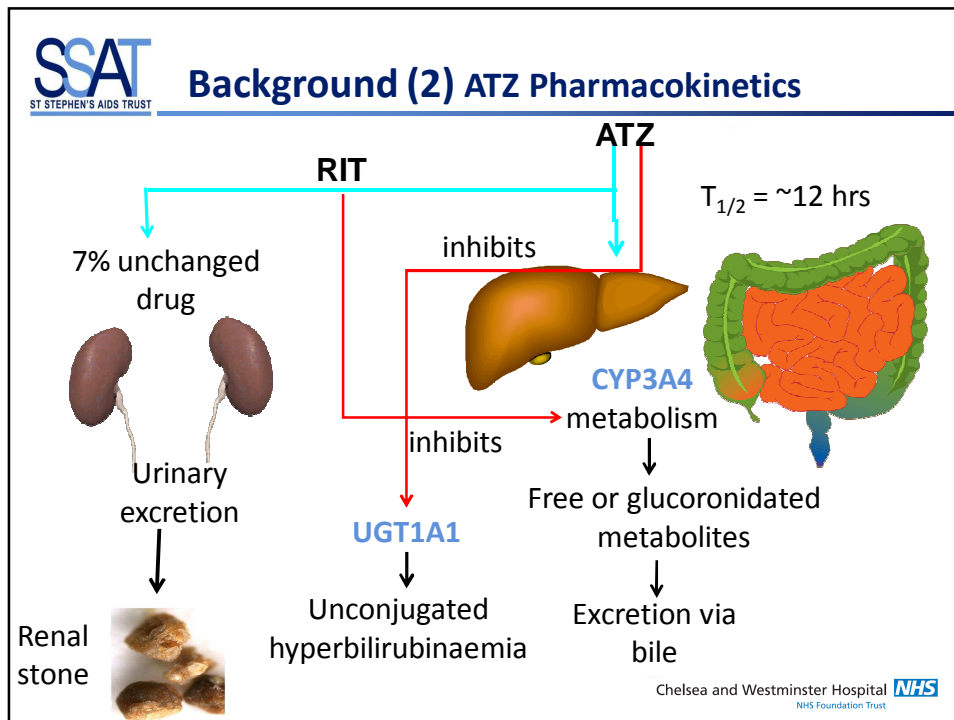
6-8 April 2011, Bournemouth International Centre

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**Atazanavir/r exposure is associated with
an increased rate of renal stones compared
with efavirenz, lopinavir/r and darunavir/r**

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- Retrospective cohort study
- Study period May '06 - Feb '10 (45 months)
- All patients receiving ATZ/r, EFV, LPV/r or DRV/r
- Patients were divided into two cohorts:
 1. ATZ/r
 2. EFV or LPV/r or DRV/r
- Patients who developed renal stones (RS) were identified through radiological records (AXR, Renal USS, IVU CT abdomen, KUB)

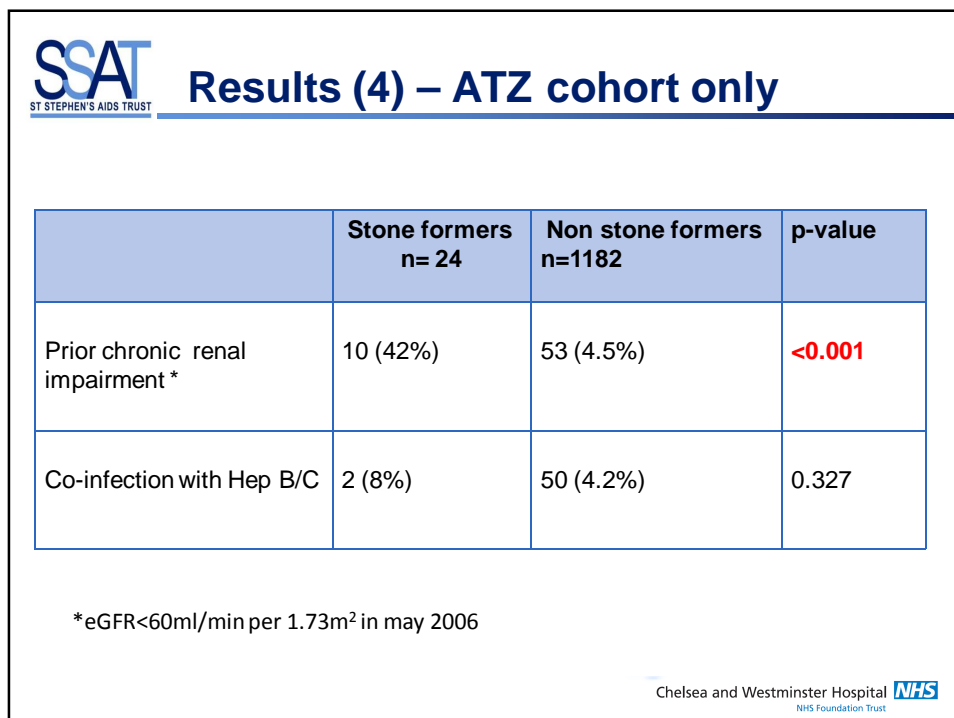
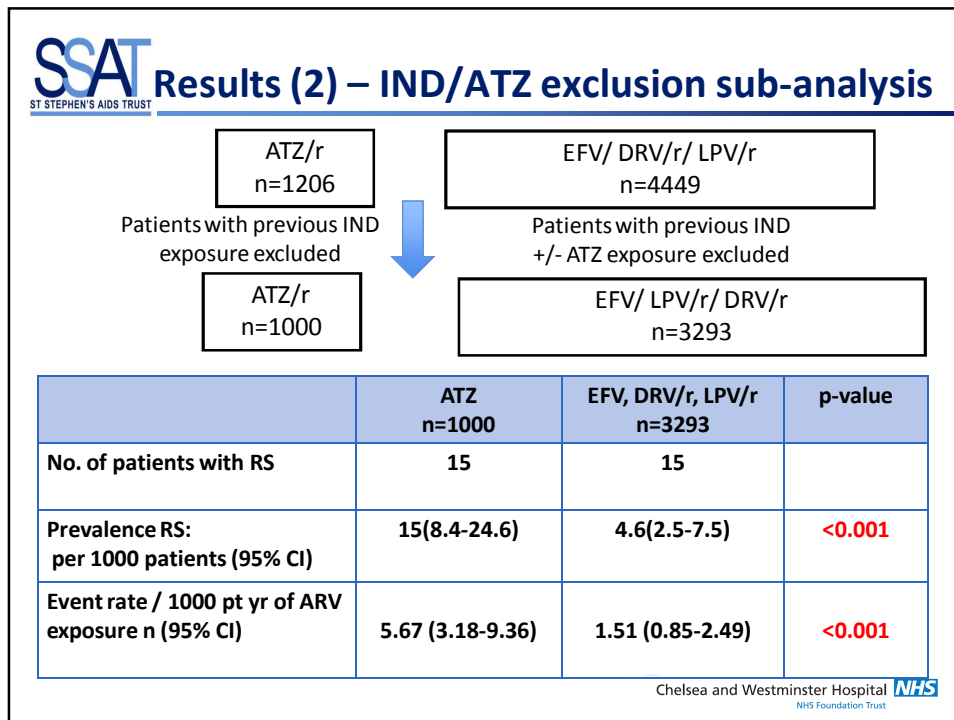
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Methods (2)

- Event rates (ER) per 1000 patient year of ARV exposure were calculated for both cohorts
- A sub-analysis was performed excluding individuals with previous IND or ATZ exposure

Results (1)

	ATZ n=1206	EFV/ DRV/r/ LPV/r n=4449	p-value
No. of patients with RS	24	24	
Prevalence RS: per 1000 patients (95% CI)	20 (13-30)	5.4 (3.2-7.6)	<0.001
Event rate / 1000 pt yr of ARV exposure n (95% CI)	7.3 (4.7-10.8)	1.9 (1.2-2.8)	<0.001



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Results (3)- ATZ cohort only

	Stone formers n=24	Non stone formers n=1182	p-value
Bilirubin at RS diagnosis median $\mu\text{mol/l}$ (IQR)	51(32-65)	23 (9-44)	<0.001

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Study Limitations

- Retrospective
- No. of RS underestimated
 - radiological diagnosis
 - Investigations at other hospitals
- Not all patients had stone composition analysis

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Conclusions (1)

- Event rate of ATZ RS was 7.3 per 1000 patient year of ARV exposure
- Event rate of RS was higher (x3.8) in individuals on ATZ compared to those on EFV/LPV/r/DRV/r
- Event rate remained significantly higher in the ATZ cohort after adjusting for prior ATZ/IND exposure



Conclusions (2)

- ATZ RS was linked to
 - Higher levels of bilirubin = higher levels of ATZ
 - Previous renal dysfunction
- ATZ RS - to be considered in choice of PI as potential important cause of co-morbidity



Acknowledgments

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