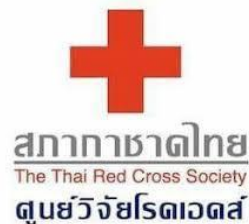


Renal and liver function changes among post-exposure prophylaxis clients at the Thai Red Cross Anonymous Clinic in Bangkok

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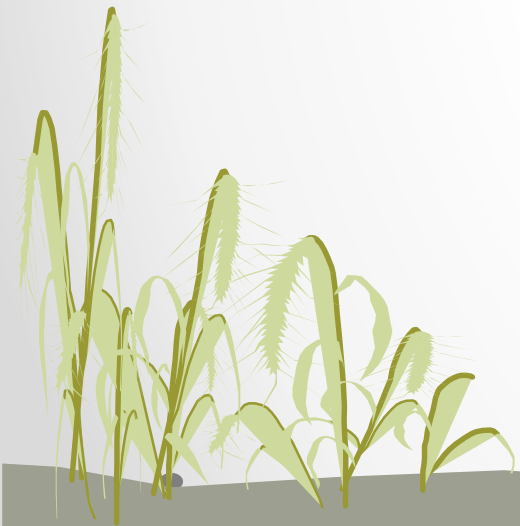
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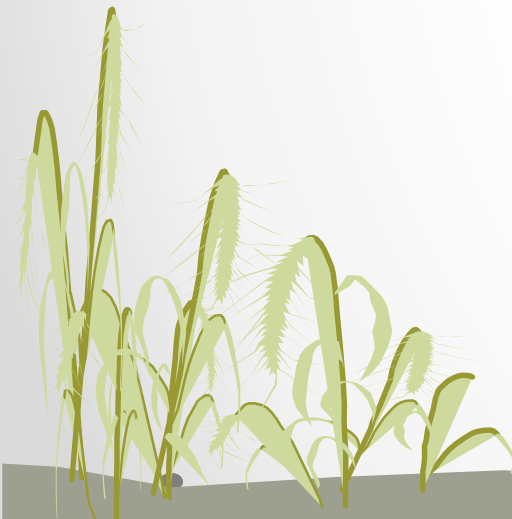
Background

- Post-exposure prophylaxis (PEP) is one of the key interventions in the combination of HIV prevention packages.
- Three-drug PEP regimens for 28 days to be started within 72 hours of exposure are recommended by the Thai guidelines.



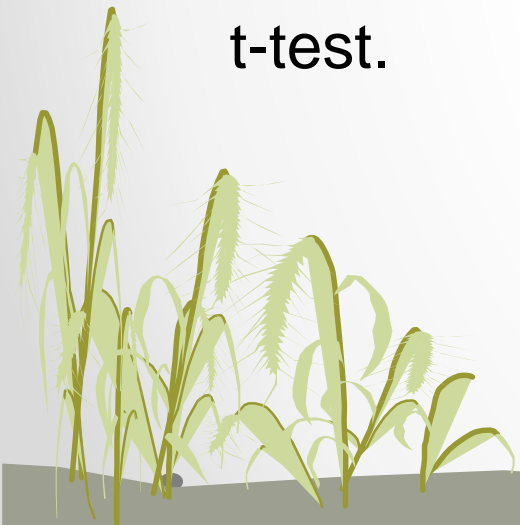
Aim

- To study changes in renal and liver function tests among PEP clients of the Thai Red Cross Anonymous Clinic (TRCAC) in Bangkok between 28 April 2016 to 31 December 2017.



Materials and Methods

- Serum creatinine (Cr by enzymatic assay) and alanine aminotransferase (ALT) were measured by Beckman Coulter (AU480) at baseline (pre-PEP) and approximately 4 weeks after PEP initiation (post-PEP).
- Comparisons of Cr and ALT between pre/post-PEP were assessed by paired t-test.



Results

Anti-HIV testing clients
57,792

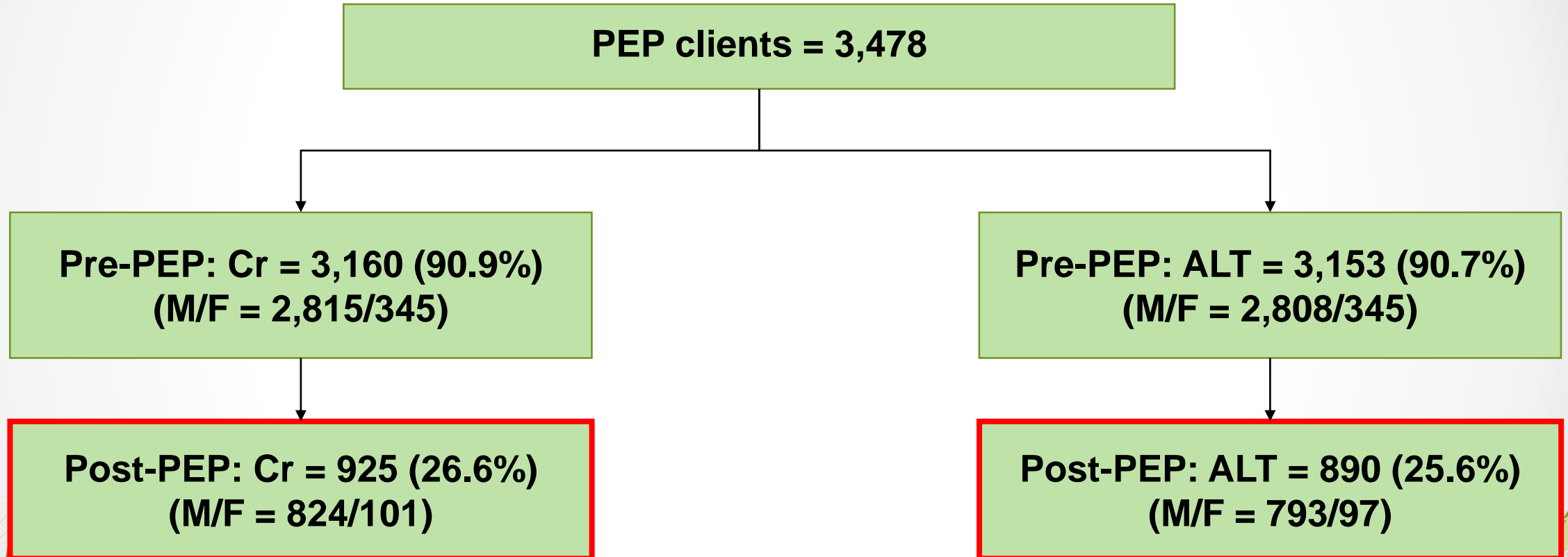
Requested PEP
3,568 (6.2%)

Got PEP
3,478 (97.5%)

90 (2.5%) excluded

- 82 came in after 72 hours of exposure
- 8 tested HIV-positive at baseline

Results



**Only those with both pre-post results were used for analysis (Cr 925 and ALT 890)*

Results

Table 1: PEP regimens prescribed at the TRCAC (28 April 2016 to 31 December 2017)

Regimens	No.	%
TDF/FTC/RPV	3,211	93.61
TDF/FTC/LPV/r	5	0.16
TDF/FTC/EFV	1	0.03
Others	213	6.21

Creatinine Result

Table 2: Pre/Post-PEP comparison of creatinine by paired t-test

	Creatinine (n = 925)		P-value
	Pre-PEP	Post-PEP	
Overall Creatinine (IQR)	0.93 (0.83-1.03)	0.99 (0.89-1.09)	<0.001
❖ Male*	0.96	1.02	
❖ Female*	0.71	0.76	

*Normal Range: Male = 0.72-1.18 mg/dl, Female = 0.55-1.02 mg/dl

We found significant increase in creatinine.

ALT Result

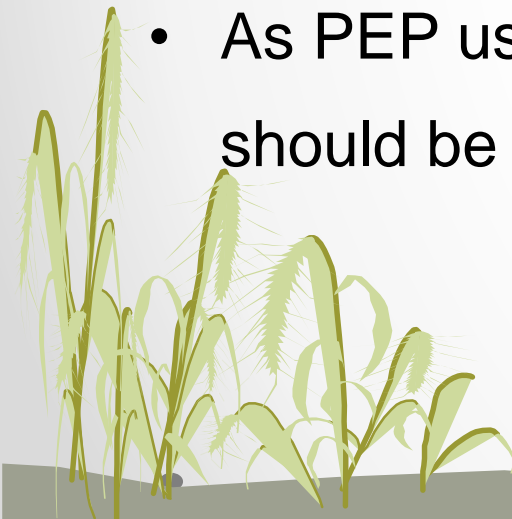
Table 3: Pre/Post-PEP comparison of ALT by paired t-test

	ALT (n = 890)		P-value
	Pre-PEP	Post-PEP	
Overall ALT (IQR)	22 (16-33)	26 (19-33)	<0.001
❖ Male*	31	37	
❖ Female*	17	23	
*Normal Range: Male = <50 U/L, Female = <35 U/L			

We found significant increase in ALT.

Conclusions

- Only 1/3 of PEP clients came back for follow up.
- PEP clients should be informed of the side-effects of the drugs.
- Although Cr and ALT increased significantly after PEP, the increase does not seem to be at the level with clinical significance.
- As PEP use indicates high risk behaviors, clients coming in for PEP service should be the main target for pre-exposure prophylaxis (PrEP).



Acknowledgement



- TRCAC Staff
- All TRCAC Clients



Thank You



Any questions?

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