IPT decreases rates of new TB cases in Anova's Johannesburg APACE programme

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Policy Brief Prepared by Melanie Bisnauth.

Background

The South African Antiretroviral Treatment Guidelines 2013 state that all people living with HIV, in whom active TB has been reasonably excluded, should complete a course of IPT. Unfortunately, this is not fully adhered to partly due to implementation challenges, including clinician confidence in the safety of IPT and clinician forgetting to repeat IPT prescriptions. Additional data challenges also include stationery issues where proper recording of IPT use does not occur which makes showing the true impact of IPT interventions difficult.

What was our approach?

Using HIV and TB TIER.net data, the aim of this analysis was to determine the effect of IPT, on the risk of developing TB over 5 years of follow up.

What did we find out?

Table 1 shows that overall, patients with no IPT history reported up to 5 times more new TB cases compared to those put on IPT at ART initiation and patients put on IPT 1 month after ART initiation reported up to 4 times more new TB cases and (risk reported over 5 years follow up from ART initiation).

Table 1: TB onset risk by timing of IPT administration

IPT at ART initiation	Developed TB after ART initiation		Adjusted Hazard Ratio * (95% CI)	P value
	No (N, %)	Yes (N,%)		
Within 1 month ART initiation	51,468 (100%)	212 (<1%)	1	
1month after ART	45,751 (97%)	1,480 (3%)	3.81 (3.19-4.56)	<0.001
No IPT	134,650 (93%)	9,670 (7%)	4.81 (4.06-5.71)	<0.001

* Adjusted by gender, age at ART initiation, WHO clinical staging, baseline CD4 count and CPT administration

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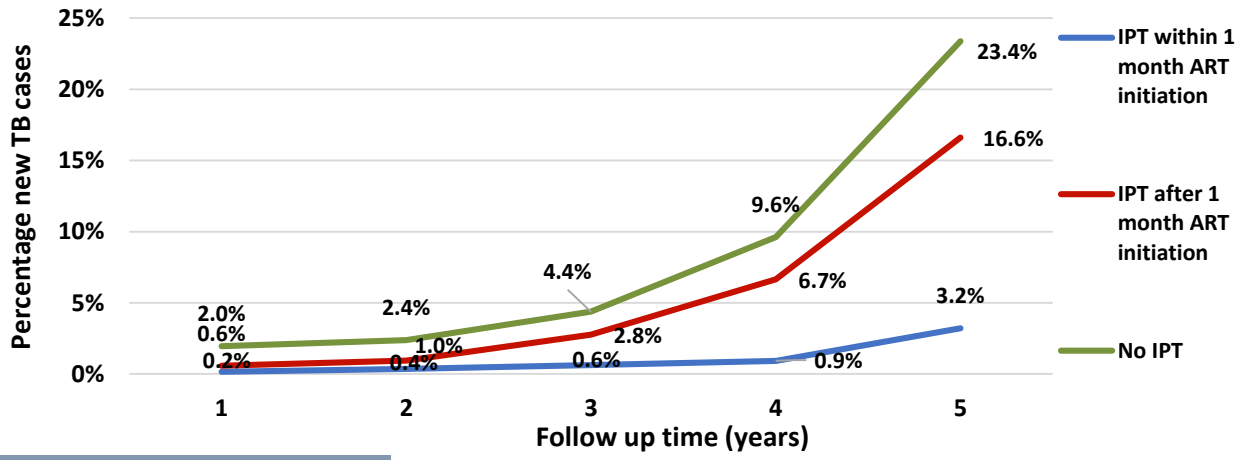
Figure 1 shows that those that were put on IPT at ART initiation developed fewer TB cases over 5 years after ART initiation followed by those put on IPT more than 1 month after ART initiation. Those with no IPT history developed the most TB cases. The risk of developing TB for those with no IPT history was greatest at 4 and 5 years after ART initiation with reported increases of 5% and 14% respectively.

Figure 1: Rates of developing TB by IPT administration timing



What can we do?

1. To reduce the number of new TB cases, ensure eligible patients are initiated on IPT as soon as possible after ART initiation.
2. Clients who have not received IPT at ART start still benefit from IPT, and all eligible clients who have not already taken a course of IPT should receive it.
3. We should continue to work on strengthening recording. This will enable a clearer understanding of the differences in likelihood of developing TB between those who have completed their IPT and those who have not.

So What?

A change in healthcare worker perception is needed if IPT is to be more widely used. Effort must be put in to ensure clinical teams initiate eligible patients on IPT (the sooner the better however, the benefits of IPT are still evident in those put on IPT well after ART) as those on IPT reported fewer new TB cases compared to those never put on IPT.

Reference

- South African Antiretroviral Treatment Guidelines 2013
- Lester R, Hamilton R, Charalambous S, Dwadwa T, Chandler C, Churchyard GJ, Grant AD. Barriers to implementation of isoniazid preventive therapy in HIV clinics: a qualitative study. AIDS. 2010 Nov;24 Suppl 5:S45-48