



Status of Resistant to First Line Anti-Tuberculosis Drugs, Iraq

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Background

- Case of multidrug-resistant TB (MDR-TB) TB that is resistant to two first-line drugs: isoniazid and rifampicin. For most patients diagnosed with MDR-TB, WHO recommends treatment for 20 months with a regimen that includes second-line anti-TB drugs.

Background

- Globally, an estimated 3.3% of new TB cases and 20% of previously treated cases have MDR-TB.
- In 2014, worldwide:
 - an estimated cases of MDR 480,000
 - Only 26% (123,000) were detected
 - 54% occurring in India, China and the Russian Federation.
 - 190 000 people died of MDR-TB

Background

- "" Globally, only 50% of MDR-TB patients were successfully treated.
- "" Extensively drug-resistant TB (XDR-TB) had been reported by 105 countries by 2015. An estimated 9.7% of people with MDR-TB have XDR-TB.

Background

- Iraq ranks 108 globally and 8th Regionally (EMR) where WHO estimates an incidence of 43 TB cases/100,000 population.
- There is no clear figure/estimate about DR-TB in Iraq, until a drug resistance survey was conducted lastly during 2013-2015.

Recorded cases of MDR TB in Iraq

Year	RIF Resistant	MDR
2006	20	20
2007	9	9
2008	63	63
2009	105	72
2010	145	110
2011	88	84
2012	72	62
2013	167	83
2014	196	56

Treatment outcome for multidrug resistant tuberculosis patients enrolled in treatment in Iraq during 2006-2014

Year	Converted	Defaulted	Died	Still Positive ^A	NA ^B	Grand Total	Success Rate
2011	45	2	3	12	0	62	73%
2012	71	11	3	29	0	114	62%
2013	45	14	3	5	12	79	57%
2014	12	6	0	1	37	56	---- ^C
Grand Total	173	33	9	40	23	340	

^A Still positive after 24 months of treatment (and treatment is extended)

^B Not applicable (not completed two years of treatment yet)

^C Result should appear after December 2015.

Survey Results

- Category I (new) Patients
 - DST Results for 888 patients:
 - INH resistance 79 = 8.9%
 - RR 56 = 6.3%
 - ER 54 = 6.1%
 - SR 194 = 19.5%
 - MonoR 176 = 19.8%
 - PolyR 81 = 9.1%
 - MDR 10 = 1.1%
 - Susceptible for all 621 = 69.9%

Survey Results

- Category I (new) Patients
 - DST Results for 141 patients:
 - INH resistance 39 = 27.7%
 - RR 43 = 20.1%
 - ER 23 = 16.3%
 - SR 44 = 31.2%
 - MonoR 29 = 20.6%
 - PolyR 10 = 7.1%
 - MDR 28 = 19.9%
 - Susceptible for all 74 = 52.5%

Finally

- Presence of MDR in Iraq is low (1.1%).
However, it needs to be monitored because:
 - H resistance is relatively high (7.6%)
 - R resistant is relatively high (5.9%)

Estimated proportions for INH & RIF antituberculous drug resistance according to drug resistance survey conducted in Iraq 2013-2014.

Drug-resistance pattern	Prevalence (% [95% CI])	
	New	Previously treated
Susceptible to all drugs	71.3 [66.1- 76.0]	52.9 [44.3 - 61.3]
Any drug resistance	28.7 [24.0 - 33.9]	47.1 [38.7 - 55.8]
- Any resistance to H	7.6 [5.4 - 10.7]	27.9 [20.6 - 36.1]
- Any resistance to R	5.9 [4.4 - 8.0]	24.3 [17.4 - 32.2]
MDR	1.1 [0.3 – 1.8]	19.7 [12.5 – 26.8]

THANK YOU