



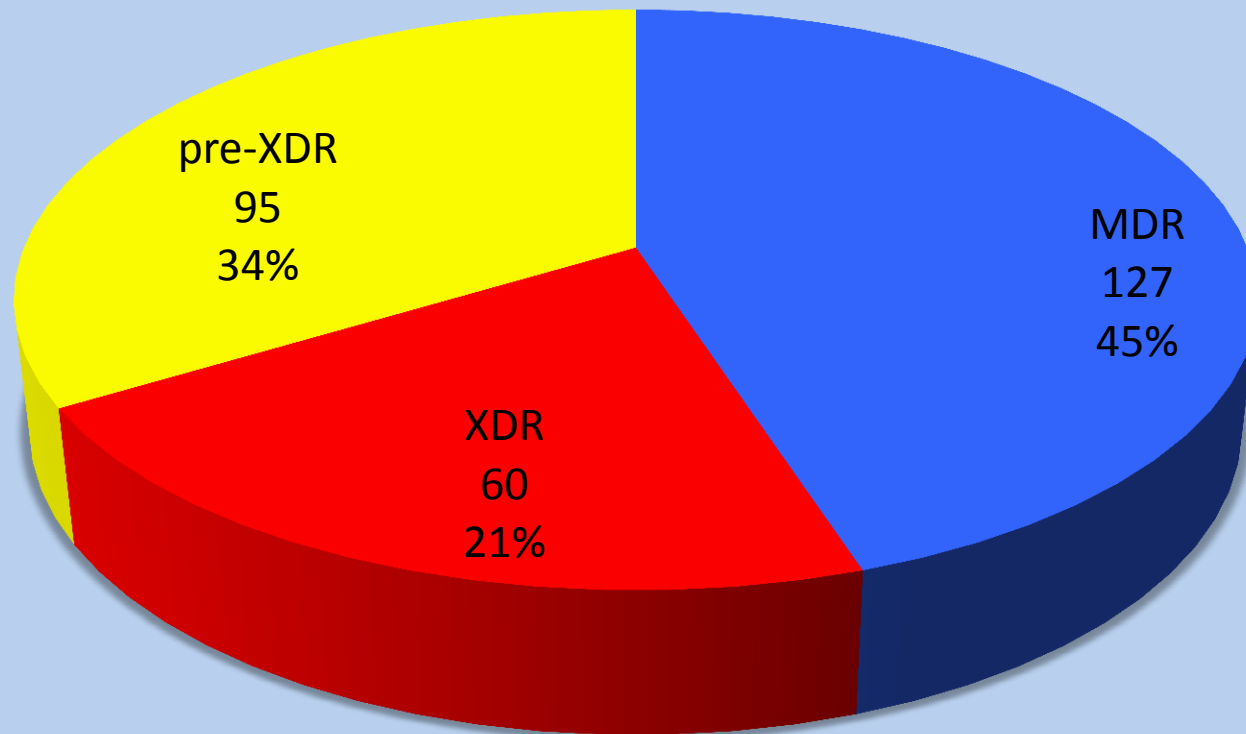
New treatments and approaches to Tuberculosis
Tuberculosis Symposium – Eastern Europe and Central Asia
RA Ministry of Health and Médecins Sans Frontières

Interim results of Bedaquiline use in Chechnya: 6 months

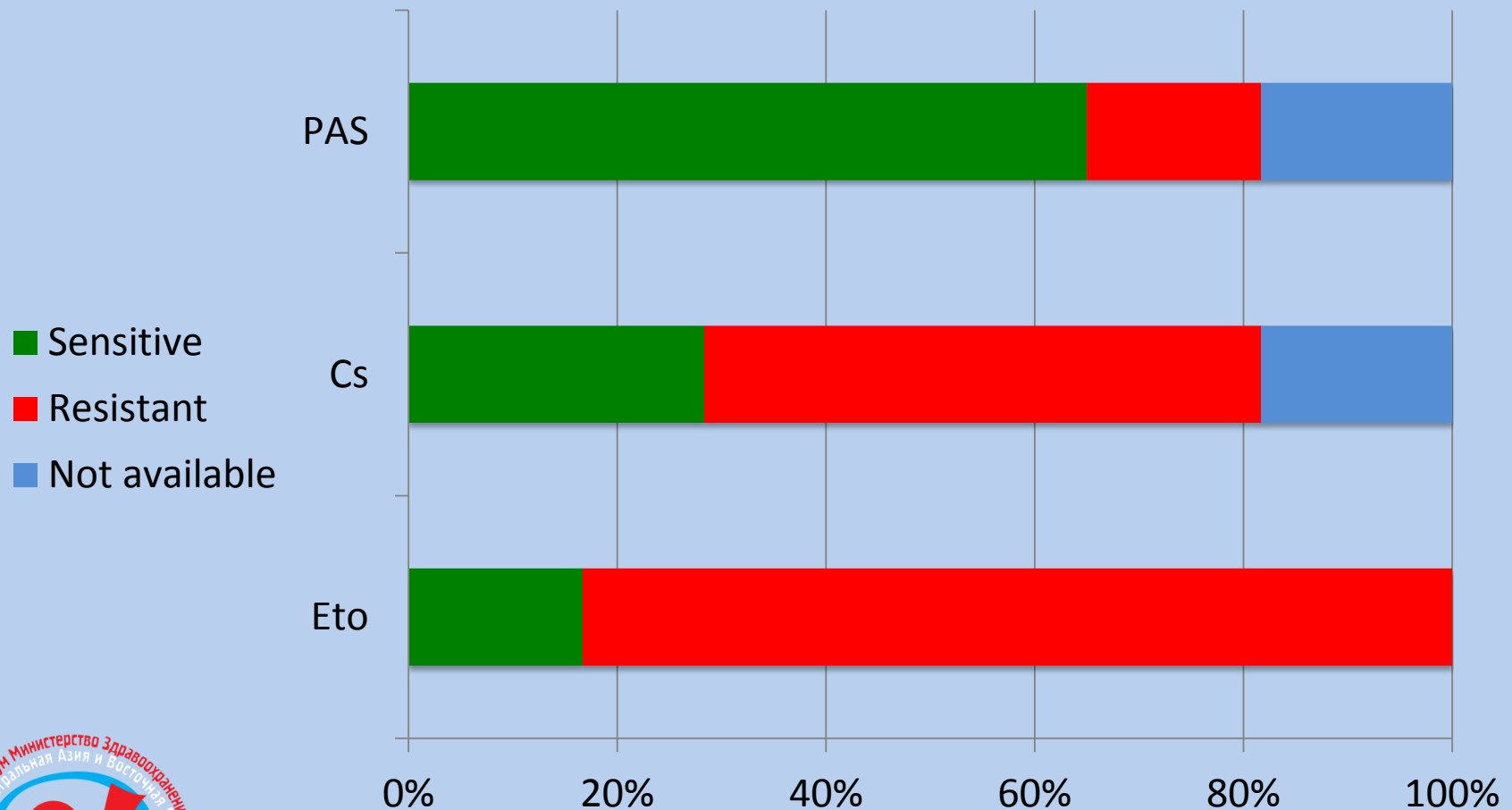
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XDR TB in Chechnya



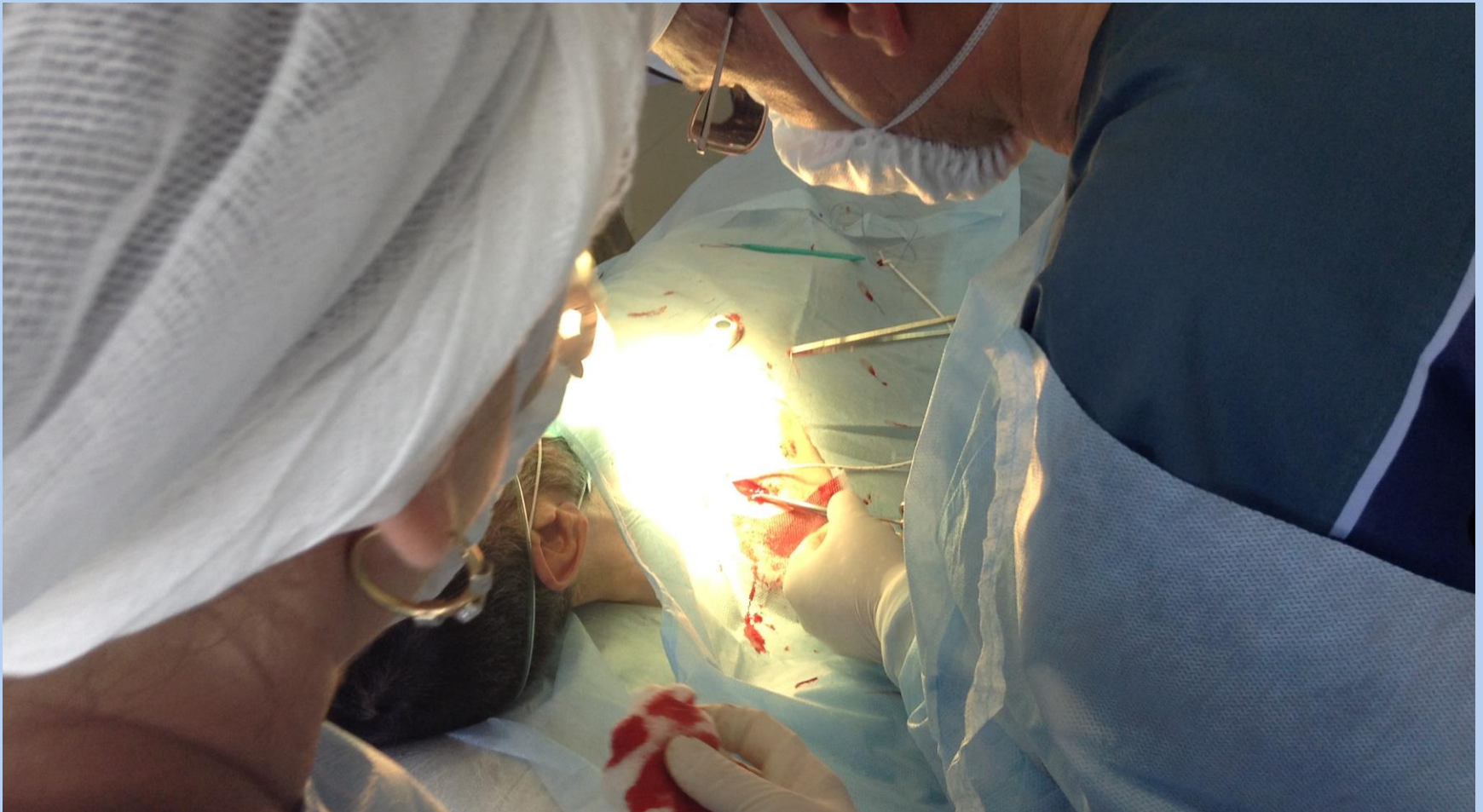
Resistance to group 4 drugs in XDR TB



New and repurposed drugs used

- Bedaquiline
- Linezolid
- Imipenem/Cilastatin
- Clofazimine
- Amoxicillin/Clavulanate

Implantable Catheter for Imipenem



Individualized regimens

- Resistance pattern
- History of use
- Co-morbidities

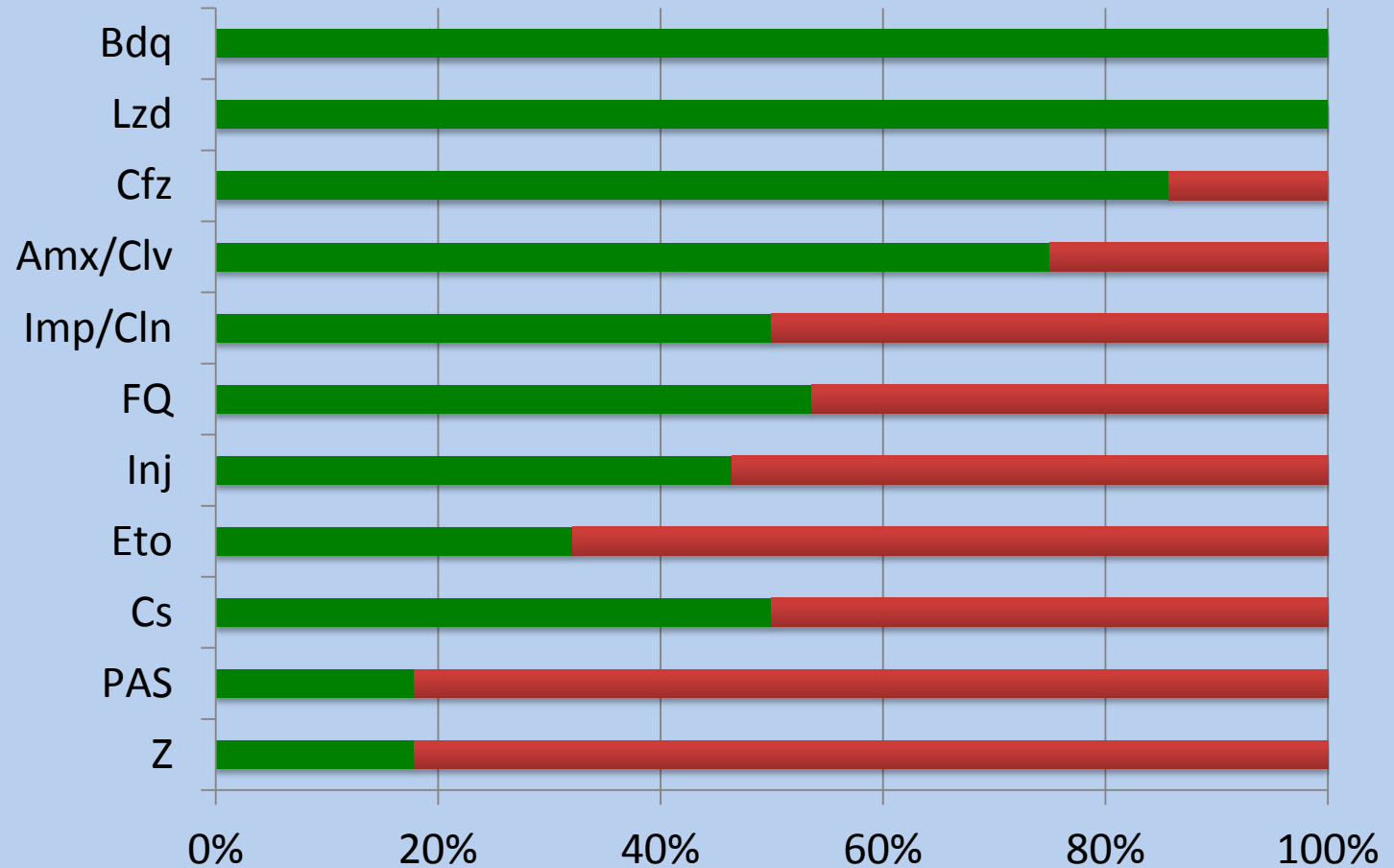


Patients initiated on treatment with Bedaquiline

- Started in June 2014
- 28 patients initiated
- 15 XDR and 13 pre-XDR
- Age: 21 to 64 yrs
- 18 males and 10 females



Regimen



■ Used
■ Not used



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Smear results at follow up months

Patient	0	1	2	3	4	5	6	Outcome
1	Positive	Positive	Positive	Positive	Negative	Positive	Black	Died
2	Positive	Positive	Positive	Positive	Positive			
3	Positive	Positive	Negative	Negative	Negative	Negative	Negative	
4	Positive	Positive	Negative	Positive	Negative	Negative		
5	Positive	Positive	Positive	Negative	Negative			
6	Positive	Negative	Positive	Negative	Negative			
7	Positive	Black	Black	Black	Black	Black	Black	Lost to FU
8	Positive	Positive	Positive	Positive	Negative			
9	Positive	Positive	Positive	Positive	Positive	Negative		
10	Negative	Negative	Negative	Negative	Negative	Negative		
11	Positive	Positive	Negative	Negative	Negative	Negative		
12	Negative	Negative	Negative	Negative	Negative	Negative		
13	Negative	Negative	Negative	Negative	Negative			
14	Negative	Positive	Negative	Negative	Negative			
15	Positive	Positive	Negative	Negative	Negative			
16	Positive	Positive	Positive	Negative	Negative			
17	Negative	Positive	Negative	Negative	Negative			
18	Negative	Negative	Positive	Negative	Negative			
19	Positive	Positive	Positive	Black	Black	Black	Black	Died
20	Positive	Positive						
21	Negative	Negative	Negative					
22	Positive	Positive	Negative					
23	Positive	Positive	Positive					
24	Positive	Negative						
25	Positive							
26	Positive							
27	Positive							
28	Positive							

	Positive
	Negative



Culture results at follow up months

Patient	0	1	2	3	4	5	6	Outcome
1	Positive	Positive	Positive	Positive	Positive	Positive	Black	Died
2	Positive	Positive	Positive	Positive	Positive	White	White	
3	Positive	Positive	Negative	Negative	Negative	Negative	White	
4	Positive	Positive	Positive	Positive	Negative	White	White	
5	Positive	Positive	Positive	Negative	White	White	White	
6	Positive	Positive	Positive	Contaminated	White	White	White	
7	Positive	Black	Black	Black	Black	Black	Black	Lost to FU
8	Positive	Positive	Positive	Positive	White	White	White	
9	Positive	Positive	Positive	Negative	White	White	White	
10	Positive	Positive	Negative	Negative	White	White	White	
11	Positive	Positive	Negative	Negative	White	White	White	
12	Positive	Negative	Negative	Negative	White	White	White	
13	Positive	Negative	Negative	Negative	White	White	White	
14	Positive	Positive	Positive	Negative	White	White	White	
15	Positive	Positive	Negative	Negative	White	White	White	
16	Positive	Positive	Positive	Negative	White	White	White	
17	Positive	Positive	Negative	Negative	White	White	White	
18	Positive	Negative	Negative	Negative	White	White	White	
19	Positive	Positive	White	Black	Black	Black	Black	Died
20	Positive	Positive	White	White	White	White	White	
21	Positive	Negative	White	White	White	White	White	
22	Positive	Positive	White	White	White	White	White	
23	Positive	White	White	White	White	White	White	
24	Positive	White	White	White	White	White	White	
25	Positive	White	White	White	White	White	White	
26	Positive	White	White	White	White	White	White	
27	Positive	White	White	White	White	White	White	
28	Positive	White	White	White	White	White	White	

Positive	Positive
Negative	Negative
Contaminated	Contaminated



Mortality

- 1 patient at 6 months of treatment: Diabetic with known CCF
- 1 patient at 3 months of treatment: Unkown cause

QT prolongation

- QTcF increase by 30-60 ms in 10 pts
- QTcF increase by >60 ms in 2 pts
 - 1 patient (with known CCF) had QTcF > 500ms at 1 month: treatment withheld till normalisation
 - Another patient had QTcF >500 ms but normalised after 1 week.

Challenges

- High cost of treatment
- Maintenance of Catheter
- Importation of Clofazimine



Summary

- Bedaquiline in combination with Linezolid and other drugs seems to be a promising option in the treatment of XDR TB patients.
- Careful monitoring of patients is warranted.

Thank You!



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