Supplementary Table S1[1]

PICO 1. In patients with MDR/RR-TB, which individual drugs in the regimens are more or less likely to lead to treatment success (and other relevant outcomes)?
PICO 2. In TB patients with isoniazid-resistant TB or *M.bovis* disease, which drug regimen composition and duration is more or less likely to lead to treatment success (and other relevant outcomes)?
PICO 3. In MDR-TB patients, are treatment regimens lasting up to 12 months more or less likely to lead to treatment success (and other relevant outcomes), when compared with those recommended in the WHO guidelines of 2011?
PICO 4. Among patients on MDR-TB treatment, is the (i) timing to start of treatment and (ii) elective surgery more or less likely to lead to treatment success (and other relevant outcomes)?

PICO=*P*opulation, *I*ntervention, *C*omparator to the intervention, *O*utcomes

[1] see Annex 3 of (25) for the full versions of the PICO questions

Supplementary Table S2. Summary of the evidence reviews conducted for the 2016 revision of the treatment guidelines for drug-resistant TB[2]

PICO	Characteristics of review	Ref.
1	Systematic review (SR) & study-level meta-analysis for effect of 2nd line drugs in MDR-TB treatment	(46),(47)
1	SR & individual patient data (IPD) meta-analysis for effect of 2nd line drugs in MDR-TB treatment	(41)
1	SR & individual patient data (IPD) meta-analysis for the effect of 2nd line drugs in MDR-TB treatment in children	unpublished
2	SR & study-level meta-analysis for effect of different regimens in isoniazid-resistant TB	(70)
2	SRs for treatment of *M. bovis* disease	unpublished
3	Meta-analysis of shorter MDR-TB regimens (IPD + aggregated data)	(71)
4	SR for delay to start of MDR-TB treatment	(50)
4	SR for the effect of surgery on MDR-TB patient outcomes	(49)
4	Individual patient data meta-analysis for the effect of surgery on MDR-TB patient outcomes	(48)

IPD=individual patient data meta-analysis; **MDR-TB**=multidrug-resistant TB ; **PICO**=*P*opulation, *I*ntervention, *C*omparator, *O*utcomes; **SR**=systematic review

[2] See (27),(33) for details on the reviews done for bedaquiline and delamanid after May 2016.

Supplementary Table S3. Summary of changes in the evidence-informed recommendations between the 2016 and 2011 guidelines (18),(25)

2011 guidelines (18)	***2016 guidelines***
Use of rapid diagnostics for rifampicin resistance Rapid drug susceptibility testing (DST) of isoniazid and rifampicin or of rifampicin alone is recommended over conventional testing or no testing at the time of diagnosis of TB, subject to available resources (conditional recommendation, very low quality evidence)	UPDATED [from (22)] Rapid drug susceptibility testing (DST) of at least rifampicin is recommended in adults and children over conventional testing or no testing at the time of diagnosis of TB (strong recommendation, high certainty in the evidence)
Use of sputum microscopy and culture to monitor response to treatment The use of sputum smear microscopy and culture rather than sputum smear microscopy alone is recommended for the monitoring of patients with MDR-TB during treatment (conditional recommendation, very low quality evidence)	REMAINS VALID[3]
Use of a shorter MDR-TB treatment regimen[4] NO SPECIFIC RECOMMENDATION	In patients with rifampicin-resistant or multidrug-resistant TB (MDR/RR-TB) who were not previously treated with second-line drugs and in whom resistance to fluoroquinolones and second-line injectable agents was excluded or is considered highly unlikely, a shorter MDR-TB regimen of 9–12 months may be used instead of the longer regimens (conditional recommendation, very low certainty in the evidence)
Composition of longer MDR-TB treatment regimens In the treatment of patients with MDR-TB, a fluoroquinolone should be used (strong recommendation, very low quality evidence) In the treatment of patients with MDR-TB, a later-generation fluoroquinolone rather than an earlier-generation fluoroquinolone should be used (conditional recommendation, very low quality evidence) In the treatment of patients with MDR-TB, ethionamide (or prothionamide) should be used (strong recommendation, very low quality evidence) In the treatment of patients with MDR-TB, regimens should include at least pyrazinamide, a fluoroquinolone, a parenteral agent, ethionamide (or prothionamide), and either cycloserine or PAS (*p*-aminosalicylic acid) if cycloserine cannot be used (conditional recommendation, very low quality evidence)	UPDATED[5] In patients with MDR/RR-TB, a regimen with at least five effective TB medicines during the intensive phase may be used, including pyrazinamide and four core second-line TB medicines - one chosen from group A, one from group B, and at least two from group C[6] (conditional recommendation, very low certainty in the evidence). If the minimum of effective TB medicines cannot be composed as given above, an agent from group D2 and other agents from D3 may be added to bring the total to five[7]. In patients with MDR/RR-TB, the regimen may be further strengthened with high-dose isoniazid and/or ethambutol (conditional recommendation, very low certainty in the evidence).

[3] This recommendation continues to apply and will be revised if a future evidence review conducted for the purpose of updating WHO policy guidance shows such need

[4] See text for the definition of the shorter MDR-TB treatment regimen, and for other conditions which apply when implementing this recommendation

[5] In October 2016, the WHO policy on the use of delamanid was revised and the medicine is now also recommended for use in patients aged 6-17 years (21),(27). The WHO policy on the use of bedaquiline remains unchanged (20),(33)

[6] Group A=levofloxacin, moxifloxacin, gatifloxacin; Group B=amikacin, capreomycin, kanamycin, (streptomycin); Group C=ethionamide (or prothionamide), cycloserine (or terizidone), linezolid, clofazimine. In children with non-severe disease Group B medicines may be excluded

[7] Group D2=bedaquiline, delamanid; Group D3=*p*-aminosalicylic acid, imipenem-cilastatin, meropenem, amoxicillin-clavulanate, (thioacetazone)

2011 guidelines (18)	***2016 guidelines***
Composition of conventional MDR-TB treatment regimens (continued) In the treatment of patients with MDR-TB, four second-line anti-tuberculosis drugs likely to be effective (including a parenteral agent), as well as pyrazinamide, should be included in the intensive phase (conditional recommendation, very low quality evidence)	UPDATED (as above)
Treatment of patients with rifampicin-resistant TB NO SPECIFIC RECOMMENDATION	Any patient – child or adult – with RR-TB in whom isoniazid resistance is absent or unknown may be treated with a recommended MDR-TB regimen, either a shorter MDR-TB regimen, or if this cannot be used, a longer MDR-TB regimen to which isoniazid is added.
Duration of conventional MDR-TB treatment regimens In the treatment of patients with MDR-TB, an intensive phase of 8 months is suggested for most patients, and the duration may be modified according to the patient's response to therapy (conditional recommendation, very low quality evidence). In the treatment of patients newly diagnosed with MDR-TB (i.e. not previously treated for MDR-TB), a total treatment duration of 20 months is suggested for most patients, and the duration may be modified according to the patient's response to therapy (conditional recommendation, very low quality evidence).	REMAINS VALID[3]
Start of antiretroviral therapy with MDR-TB treatment Antiretroviral therapy is recommended for all patients with HIV and drug-resistant TB requiring second-line anti-tuberculosis drugs, irrespective of CD4 cell-count, as early as possible (within the first 8 weeks) following initiation of anti-tuberculosis treatment (strong recommendation, very low quality evidence).	REMAINS VALID[3]
Use of surgery as part of MDR-TB treatment NO SPECIFIC RECOMMENDATION	In patients with MDR/RR-TB, elective partial lung resection (lobectomy or wedge resection) may be used alongside a recommended MDR-TB regimen (conditional recommendation, very low certainty in the evidence).
Models of MDR-TB care (ambulatory/hospitalization) Patients with MDR-TB should be treated using mainly ambulatory care rather than models of care based principally on hospitalization (conditional recommendation, very low quality evidence).	REMAINS VALID[3]

References

1. PRESS RELEASE: High-Level Meeting on Antimicrobial Resistance | General Assembly of the United Nations [Internet]. [cited 2016 Nov 7]. Available from: http://www.un.org/pga/71/2016/09/21/press-release-hl-meeting-on-antimicrobial-resistance/

2. Zignol M, Dean AS, Falzon D, van Gemert W, Wright A, van Deun A, et al. Twenty years of global surveillance of antituberculosis-drug resistance. New Eng J Med. 2016 Sep 15;375(11):1081–9.

3. Wright A, Zignol M, Van Deun A, Falzon D, Gerdes SR, Feldman K, et al. Epidemiology of antituberculosis drug resistance 2002-07: an updated analysis of the Global Project on Anti-Tuberculosis Drug Resistance Surveillance. Lancet. 2009 May 30;373(9678):1861–73.

4. Guidelines for treatment of tuberculosis. 4th ed. (WHO/HTM/TB/2009.420) [Internet]. Geneva, World Health Organization. 2009. Available from: http://whqlibdoc.who.int/publications/2010/9789241547833_eng.pdf

5. Falzon D, Jaramillo E, Schünemann HJ, Arentz M, Bauer M, Bayona J, et al. WHO guidelines for the programmatic management of drug-resistant tuberculosis: 2011 update. Eur Respir J. 2011 Sep;38(3):516–28.

6. Global tuberculosis report 2016 (WHO/HTM/TB/2016.13) [Internet]. Geneva, World Health Organization; 2016. Available from: http://www.who.int/tb/publications/global_report/en/

7. Falzon D, Mirzayev F, Wares F, Baena IG, Zignol M, Linh N, et al. Multidrug-resistant tuberculosis around the world: what progress has been made? Eur Respir J. 2015 Jan 1;45(1):150–60.

8. Médecins Sans Frontières, Stop TB Partnership. Out of Step 2015. TB Policies in 24 Countries. A survey of diagnostic and treatment practices. [Internet]. Geneva, Switzerland; 2015. Available from: http://www.msfaccess.org/sites/default/files/MSF_assets/TB/Docs/TB_report_Out_of_Step_ENG_2015.pdf

9. Towards universal access to diagnosis and treatment of multidrug-resistant and extensively drug-resistant tuberculosis by 2015. WHO progress report 2011. (WHO/HTM/TB/2011.3) [Internet]. Geneva, World Health Organization. 2011. Available from: http://whqlibdoc.who.int/publications/2011/9789241501330_eng.pdf

10. Dye C, Williams BG, Espinal MA, Raviglione MC. Erasing the world's slow stain: strategies to beat multidrug-resistant tuberculosis. Science. 2002 Mar 15;295(5562):2042–6.

11. Resolution WHA62.15. Prevention and control of multidrug-resistant tuberculosis and extensively drug-resistant tuberculosis. In: Sixty-second World Health Assembly, Geneva, 18–22 May 2009, Resolutions and decisions; annexes. Geneva, World Health Organization, 2009 (WHA62/2009/REC/1):25–29 [Internet]. Available from: apps.who.int/gb/ebwha/pdf_files/WHA62-REC1/WHA62_REC1-en.pdf

12. Uplekar M, Weil D, Lönnroth K, Jaramillo E, Lienhardt C, Dias HM, et al. WHO's new end TB strategy. Lancet. 2015 May 2;385(9979):1799–801.

13. Guidelines for the management of drug-resistant tuberculosis (WHO/TB/96.210(Rev.1) [Internet]. Geneva, World Health Organization. 1997. Available from: http://apps.who.int/iris/bitstream/10665/63465/1/WHO_TB_96.210_%28Rev.1%29.pdf

14. Guidelines for establishing DOTS-Plus pilot projects for the management of multidrug-resistant tuberculosis (MDR-TB) (WHO/CDS/TB/2000.279) [Internet]. Geneva, World Health Organization; 2000. Available from: whqlibdoc.who.int/hq/2000/WHO_CDS_TB_2000.279.pdf

15. Guidelines for the programmatic management of drug-resistant tuberculosis, 1st ed. (WHO/HTM/TB/2006.361) [Internet]. Geneva, World Health Organization. 2006. Available from: http://apps.who.int/iris/bitstream/10665/246249/2/9789241546959-eng.pdf

16. Policy guidance on drug susceptibility testing (DST) of second-line anti-tuberculosis drugs. Geneva, World Health Organization, 2008. (WHO/HTM/TB/2008.392). [Internet]. Available from: whqlibdoc.who.int/hq/2008/WHO_HTM_TB_2008.392_eng.pdf

17. Guidelines for the programmatic management of drug-resistant tuberculosis, Emergency update 2008. (WHO/HTM/TB/2008.402) [Internet]. Geneva, World Health Organization. 2008. Available from: http://whqlibdoc.who.int/publications/2008/9789241547581_eng.pdf

18. Guidelines for the programmatic management of drug-resistant tuberculosis, 2011 Update. (WHO/HTM/TB/2011.6) [Internet]. Geneva, World Health Organization. 2011. Available from: http://whqlibdoc.who.int/publications/2011/9789241501583_eng.pdf

19. Rapid Implementation of the Xpert MTB/RIF diagnostic test. Technical and operational 'How-to' Practical considerations. Geneva, World Health Organization, 2011 [Internet]. Available from: whqlibdoc.who.int/publications/2011/9789241501569_eng.pdf

20. The use of bedaquiline in the treatment of multidrug-resistant tuberculosis. Interim policy guidance (WHO/HTM/TB/2013.6) [Internet]. Geneva, World Health Organization. 2013. Available from: http://apps.who.int/iris/bitstream/10665/84879/1/9789241505482_eng.pdf

21. The use of delamanid in the treatment of multidrug-resistant tuberculosis. Interim policy guidance (WHO/HTM/TB/2014.23) [Internet]. Geneva, World Health Organization. 2014. Available from: http://apps.who.int/iris/bitstream/10665/137334/1/WHO_HTM_TB_2014.23_eng.pdf

22. Automated real-time nucleic acid amplification technology for rapid and simultaneous detection of tuberculosis and rifampicin resistance: Xpert MTB/RIF assay for the diagnosis of pulmonary and extrapulmonary TB in adults and children. Policy Update (WHO/HTM/TB/2013.16) [Internet]. Geneva, World Health Organization; 2013. Available from: http://apps.who.int/iris/bitstream/10665/112472/1/9789241506335_eng.pdf

23. Companion handbook to the WHO guidelines for the programmatic management of drug-resistant tuberculosis. (WHO/HTM/TB/2014.11) [Internet]. Geneva, World Health Organization. 2015. Available from: http://apps.who.int/iris/bitstream/10665/130918/1/9789241548809_eng.pdf

24. Xpert MTB/RIF implementation manual: technical and operational 'how-to'; practical considerations (WHO/HTM/TB/2014.1) [Internet]. Geneva, World Health Organization; 2014. Available from: http://apps.who.int/iris/bitstream/10665/112469/1/9789241506700_eng.pdf

25. WHO treatment guidelines for drug-resistant tuberculosis, 2016 update (WHO/HTM/TB/2016.04) [Internet]. Geneva, World Health Organization. 2016. Available from: http://www.who.int/tb/areas-of-work/drug-resistant-tb/treatment/resources/en/

26. Implementing tuberculosis diagnostics: A policy framework (WHO/HTM/TB/2015.11) [Internet]. Geneva, World Health Organization. 2015. Available from: http://apps.who.int/iris/bitstream/10665/162712/1/9789241508612_eng.pdf

27. The use of delamanid in the treatment of multidrug-resistant tuberculosis in children and adolescents: interim policy guidance (WHO/HTM/TB/2016.14) [Internet]. Geneva, World Health Organization. 2016. Available from: http://apps.who.int/iris/bitstream/10665/250614/1/9789241549899-eng.pdf

28. The use of molecular line probe assays for the detection of resistance to second-line anti-tuberculosis drugs. Policy guidance. (WHO/HTM/TB/2016.07) [Internet]. Geneva, World Health Organization. 2016. Available from: http://www.who.int/tb/publications/lpa-mdr-diagnostics/en/

29. Guyatt GH, Oxman AD, Vist GE, Kunz R, Falck-Ytter Y, Alonso-Coello P, et al. GRADE: an emerging consensus on rating quality of evidence and strength of recommendations. BMJ. 2008 Apr 26;336(7650):924–6.

30. WHO handbook for guideline development [Internet]. 2nd ed. Geneva, World Health Organization; 2014. Available from: http://www.who.int/kms/handbook_2nd_ed.pdf

31. Guyatt G, Oxman AD, Akl EA, Kunz R, Vist G, Brozek J, et al. GRADE guidelines: 1. Introduction-GRADE evidence profiles and summary of findings tables. J Clin Epidemiol. 2011 Apr;64(4):383–94.

32. Schünemann HJ, Wiercioch W, Etxeandia I, Falavigna M, Santesso N, Mustafa R, et al. Guidelines 2.0: systematic development of a comprehensive checklist for a successful guideline enterprise. CMAJ. 2014 Feb 18;186(3):E123-142.

33. WHO | Guideline Development Group (GDG) Meetings: Revision of the interim policy on bedaquiline for MDR-TB treatment and special session on delamanid use in children [Internet]. Geneva, World Health Organization. 2016. [cited 2016 Oct 10]. Available from: http://www.who.int/tb/areas-of-work/treatment/gdg_bedaquiline_delamanid/en/

34. Cochrane Handbook for Systematic Reviews of Interventions [Internet]. 2011 [cited 2016 Jan 11]. (Version 5.1.0). Available from: http://handbook.cochrane.org/

35. Active tuberculosis drug-safety monitoring and management (aDSM). Framework for implementation.(WHO/HTM/TB/2015.28) [Internet]. Geneva, World Health Organization; 2015. Available from: http://apps.who.int/iris/bitstream/10665/204465/1/WHO_HTM_TB_2015.28_eng.pdf

36. WHO treatment guidelines for drug-resistant tuberculosis, 2016 update (WHO/HTM/TB/2016.04) Online Annexes 4,5,6 [Internet]. Geneva, World Health Organization. 2016. Available from: http://apps.who.int/iris/bitstream/10665/250125/5/9789241549639-webannexes-eng.pdf

37. Van Deun A, Maug AKJ, Salim MAH, Das PK, Sarker MR, Daru P, et al. Short, highly effective, and inexpensive standardized treatment of multidrug-resistant tuberculosis. Am J Respir Crit Care Med. 2010 Sep 1;182(5):684–92.

38. Tuberculosis - MDR-TB study in Francophone Africa [Internet]. [cited 2013 Dec 17]. Available from: http://admin.theunion.org/index.php/en/what-we-do/tuberculosis/mdr-tb-study-in-francophone-africa

39. Kuaban C, Noeske J, Rieder HL, Aït-Khaled N, Abena Foe JL, Trébucq A. High effectiveness of a 12-month regimen for MDR-TB patients in Cameroon. Int J Tuberc Lung Dis. 2015 May;19(5):517–24.

40. Piubello A, Harouna SH, Souleymane MB, Boukary I, Morou S, Daouda M, et al. High cure rate with standardised short-course multidrug-resistant tuberculosis treatment in Niger: no relapses. Int J Tuberc Lung Dis. 2014 Oct;18(10):1188–94.

41. Ahuja SD, Ashkin D, Avendano M, Banerjee R, Bauer M, Bayona JN, et al. Multidrug resistant pulmonary tuberculosis treatment regimens and patient outcomes: an individual patient data meta-analysis of 9,153 patients. PLoS Med. 2012;9(8):e1001300.

42. Aung K, van Deun A, Declercq E, Sarker M, Das P, Hossain M, et al. Successful '9-month Bangladesh regimen' for multidrug resistant tuberculosis among over 500 consecutive patients. Int J Tuberc Lung Dis. 2014;18(10):1180–7.

43. Lee M, Lee J, Carroll MW, Choi H, Min S, Song T, et al. Linezolid for Treatment of Chronic Extensively Drug-Resistant Tuberculosis. N Engl J Med. 2012;367(16):1508–18.

44. Tang S, Yao L, Hao X, Zhang X, Liu G, Liu X, et al. Efficacy, safety and tolerability of linezolid for the treatment of XDR-TB: a study in China. Eur Respir J. 2015 Jan;45(1):161–70.

45. Tang S, Yao L, Hao X, Liu Y, Zeng L, Liu G, et al. Clofazimine for the treatment of multidrug-resistant tuberculosis: prospective, multicenter, randomized controlled study in China. Clin Infect Dis. 2015 May 1;60(9):1361–7.

46. Bastos M, Lan Z, Menzies R. An Updated Systematic Review and Meta-Analysis for Treatment of Multidrug-Resistant Tuberculosis, 2016. [under review, 28 May 2016].

47. Winters N, Butler-Laporte G, Menzies D. Efficacy and safety of World Health Organization group 5 drugs for multidrug-resistant tuberculosis treatment. Eur Respir J. 2015 Nov;46(5):1461–70.

48. Fox GJ, Mitnick CD, Benedetti A, Chan ED, Becerra M, Chiang C-Y, et al. Surgery as an Adjunctive Treatment for Multidrug-Resistant Tuberculosis: An Individual Patient Data Metaanalysis. Clinical Infectious Diseases. 2016 Apr 1;62(7):887–95.

49. Harris RC, Khan MS, Martin LJ, Allen V, Moore DAJ, Fielding K, et al. The effect of surgery on the outcome of treatment for multidrug-resistant tuberculosis: a systematic review and meta-analysis. BMC Infectious Diseases [Internet]. 2016 Dec [cited 2016 Jun 12];16(1). Available from: http://bmcinfectdis.biomedcentral.com/articles/10.1186/s12879-016-1585-0

50. Harris RC, Grandjean L, Martin LJ, Miller AJP, Nkang J-EN, Allen V, et al. The effect of early versus late treatment initiation after diagnosis on the outcomes of patients treated for multidrug-resistant tuberculosis: a systematic review. BMC Infectious Diseases [Internet]. 2016 Dec [cited 2016 May 11];16(1). Available from: http://bmcinfectdis.biomedcentral.com/articles/10.1186/s12879-016-1524-0

51. WHO | Frequently asked questions (FAQ) about the shorter MDR-TB regimen [Internet]. [cited 2016 Jul 7]. Available from: http://www.who.int/entity/tb/areas-of-work/drug-resistant-tb/treatment/FAQshorter_MDR_regimen.pdf

52. Research Protocol - Effectiveness of a simplified short regimen for Multidrug Resistant Tuberculosis treatment in Karakalpakstan, Uzbekistan - MSF Field Research [Internet]. Available from: http://fieldresearch.msf.org/msf/handle/10144/322296

53. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection. Recommendations for a public health approach [Internet]. 2nd edition. Geneva, World Health Organization; 2016. Available from: http://apps.who.int/iris/bitstream/10665/208825/1/9789241549684_eng.pdf

54. Definitions and reporting framework for tuberculosis – 2013 revision (WHO/HTM/TB/2013.2) [Internet]. Geneva, World Health Organization; 2013. Available from: www.who.int/iris/bitstream/10665/79199/1/9789241505345_eng.pdf

55. TDR | WHO global database for TB active drug safety monitoring home page [Internet]. WHO. [cited 2016 Nov 1]. Available from: http://www.who.int/tdr/research/tb_hiv/adsm/en/

56. WHO | TB data [Internet]. WHO. [cited 2014 May 11]. Available from: http://www.who.int/tb/country/en/

57. Mitnick CD, White RA, Lu C, Rodriguez CA, Bayona J, Becerra MC, et al. Multidrug-resistant tuberculosis treatment failure detection depends on monitoring interval and microbiological method. Eur Respir J. 2016 Oct;48(4):1160–70.

58. Guyatt GH, Schünemann HJ, Djulbegovic B, Akl EA. Guideline panels should not GRADE good practice statements. J Clin Epidemiol. 2015 May;68(5):597–600.

59. Nasser SMU, Cooke G, Kranzer K, Norris SL, Olliaro P, Ford N. Strength of recommendations in WHO guidelines using GRADE was associated with uptake in national policy. J Clin Epidemiol. 2015 Jun;68(6):703–7.

60. Mitnick CD, Rodriguez CA, Hatton ML, Brigden G, Cobelens F, Grobusch MP, et al. Programmatic Management of Drug-Resistant Tuberculosis: An Updated Research Agenda. PLOS ONE. 2016 May 25;11(5):e0155968.

61. Nunn AJ, Rusen ID, Van Deun A, Torrea G, Phillips PPJ, Chiang C-Y, et al. Evaluation of a standardized treatment regimen of anti-tuberculosis drugs for patients with multi-drug-resistant tuberculosis (STREAM): study protocol for a randomized controlled trial. Trials. 2014;15:353.

62. Safety and Efficacy Trial of Delamanid for 6 Months in Patients With Multidrug Resistant Tuberculosis - Full Text View - ClinicalTrials.gov [Internet]. [cited 2016 Nov 17]. Available from: https://clinicaltrials.gov/ct2/show/NCT01424670

63. Zignol M, Dean AS, Alikhanova N, Andres S, Cabibbe AM, Cirillo DM, et al. Population-based resistance of Mycobacterium tuberculosis isolates to pyrazinamide and fluoroquinolones: results from a multicountry surveillance project. Lancet Infect Dis [Internet]. 2016 Jul [cited 2016 Sep 13]; Available from: http://linkinghub.elsevier.com/retrieve/pii/S1473309916301906

64. Stellenbosch University Dept of Paediatrics and Child Health. A phase III cluster randomised placebo-controlled trial to assess the efficacy of preventive therapy in child and adolescent contacts of MDR-TB (TB-CHAMP). [cited 2016 Jul 25]; Available from: http://gtr.rcuk.ac.uk/projects?ref=MR/M007340/1

65. ANZCTR - Registration [Internet]. [cited 2016 Nov 4]. Available from: https://anzctr.org.au/Trial/Registration/TrialReview.aspx?id=369817

66. IMPAACT Studies [Internet]. [cited 2016 Nov 4]. Available from: http://www.impaactnetwork.org/studies/#ongoing

67. Implementing the End TB Strategy: the essentials (WHO/HTM/TB/2015.31) [Internet]. Geneva, World Health Organization. 2015. Available from: http://www.who.int/tb/publications/2015/end_tb_essential.pdf

68. United Nations Department of Economic and Social Affairs. Sustainable Development Goals [Internet]. New York, USA; 2015. Available from: https://sustainabledevelopment.un.org/sdgs

69. Case definition for extensively drug-resistant tuberculosis. Weekly Epidemiological Record. 2006 Oct 20;81(42):408.

70. Gegia M, Winters N, Benedetti A, van Soolingen D, Menzies D. Treatment of isoniazid-resistant tuberculosis with first-line drugs: a systematic review and meta-analysis. Lancet Infect Dis [Internet]. 2016 Nov [cited 2016 Nov 24]; Available from: http://linkinghub.elsevier.com/retrieve/pii/S1473309916304078

71. Khan FA, Salim MAH, du Cros P, Casas E, Khamraev A, Sikhondze W, Benedetti A, Jaramillo E, Falzon D, Menzies D. Shorter MDR-TB Regimens: Individual patient and aggregate data meta-analyses. 2016. Under review.