Annexure 1: Supplement data

Topic Guide for conducting Focus Group Discussions

1. What is the treatment you generally give for acute diarrhea and acute uncomplicated (cough, cold, sneezing, running nose) upper respiratory tract infections (acute ARI)?
2. What are the causes and consequences of antibiotics resistance?
3. What actions are needed to prevent antibiotic resistance?
4. What are the causes of acute diarrhea and acute ARI in the community?
5. What kinds of patients visit you for acute diarrhea and acute ARI?
6. What should be the choice of treatment for acute diarrhea and acute ARI and why?
7. What is your source of information and knowledge for treatment of acute diarrhea and acute ARI?
8. In our study ((i) Antibiotic prescribing practice for acute, uncomplicated respiratory tract infections in primary care settings in New Delhi, India.[1] (ii) Antibiotic prescribing practices of primary care prescribers for acute diarrhea in New Delhi, India[2]) we found high antibiotic prescribing for acute uncomplicated RTIs and acute diarrhea and also unnecessary use of the new generation antibiotics (the findings will be quoted and published paper will be distributed).
    a. Why do you think this happens?
    b. How do you think we could change this antibiotic prescribing?
9. We also found that doctors in the private sector prescribe more antibiotics for acute uncomplicated RTIs and acute diarrhea than in the public sector (we will confront and push them for answers)
    a. Why do you think this happens?
    b. How do you think we could change this antibiotic prescribing?
10. We have found that training, seminars, standard treatment guidelines generally don't work[3-5]
    a. Why do you think this happens?
    b. What interventions might work?
11. If we cannot stop doctors prescribing new generation antibiotics for simple ARIs and diarrhea in primary care, would it be a good idea to enforce the new HI schedule so that nobody can use these newer generation antibiotics for uncomplicated conditions in primary care? If not, what else can we do?

Topic guide for semi-structured interviews for doctors: Acute uncomplicated upper respiratory tract infection in children

Area	Introductory questions	Probing questions
Introduction	Could you please think of a child with uncomplicated acute upper respiratory tract infection having symptoms for 1–5 days	Typical patient?
		Do you often encounter patient like this?
		Symptoms?
		Diagnosis?
Treatment	How did you decide on the treatment for this patient?	Symptoms?
		Direct/delayed treatment?
		Patient/parent attitudes?
		Any tests?
		Choice of drug?
		How often you use that drug?
		Any other alternative drug you choose?
		Treatment duration?
Effect of treatment	How do you usually experience the effect of the treatment?	Beginning of improvement?
		Complete cure?
		Recurrent symptoms?
		What happens if the symptoms return?
		Similar diagnosis?
		Change in therapy or same as before?
AMR	What are your thoughts on AMR in general?	Influence of antibiotic use?
		The microbiological laboratory?
		How can you curb the trend?

Contd...

Contd...

Area	Introductory questions	Probing questions
Source of information and knowledge	How do you decide on treatment	Contact with professional organizations?
		Pharmaceutical companies? Treatment guidelines from authorities?
		Any antibiotic policy from authorities?
Results of previous study showing high antibiotic prescribing for acute URTI	Why is there such high prescribing?	How could we reduce it?
	Same questions as mentioned for FGD	Same questions as mentioned for FGD

URTI=Upper respiratory tract infection, FGD=Focus group discussion, AMR=Antimicrobial resistance

Topic Guide for semi-structured interviews for pharmacists: Acute uncomplicated upper respiratory tract infection in children

Area	Introductory questions	Probing questions
Introduction	Could you please think of a child with uncomplicated acute upper respiratory tract infection having symptoms for 1-5 days	Typical patient?
		Do you often encounter patient like this?
		Symptoms?
		Diagnosis?
Treatment	How did you decide on the treatment for this patient?	Symptoms?
		Direct/delayed treatment?
		Patient/parent attitudes?
		Any tests?
		Choice of drug?
		How often you use that drug?
		Any other alternative drug you choose?
		Treatment duration?
	The prescriptions from doctors you generally receive for such patients?	Any tests?
		Choice of drug?
		How often you observe that drug being prescribed?
		Any other alternative drug commonly prescribed?
		Treatment duration?
		Any other advice written?
Effect of treatment	How do you usually experience the effect of the treatment?	Beginning of improvement?
		Complete cure?
		Recurrent symptoms?
		What happens if the symptoms return?
		Change in therapy or same as before?
AMR	What are your thoughts on AMR in general?	Influence of antibiotic use?
		The microbiological lab?
		How can you curb the trend?
Source of information and knowledge	How do you decide on treatment	Pharmaceutical companies?
		Copying the prescription of doctors? Treatment guidelines from authorities?
		Any antibiotic policy from authorities?
Results of previous study showing high antibiotic prescribing for acute diarrhea	Why is there such high prescribing?	How could we reduce it?
	Same questions as mentioned for FGD	Put in questions as for FGDs

URTI=Upper respiratory tract infection, FGDs=Focus group discussions, AMR=Antimicrobial resistance

Topic guide for semi-structured interviews for doctors: Acute diarrhoea in children

Area	Introductory questions	Probing questions
Introduction	Could you please think of a child with acute diarrhea for last one or two days without mucus or blood in the stool?	Typical patient?
		Do you often encounter patient like this?
		Symptoms?
		Diagnosis?
Treatment	How did you decide on the treatment for this patient?	Symptoms?
		Direct/delayed treatment?
		Patient/parent attitudes?
		Any tests?
		Choice of drug?
		How often you use that drug?
		Any other alternative drug you choose?
		Treatment duration?
Effect of treatment	How do you usually experience the effect of the treatment?	Beginning of improvement?
		Complete cure?
		Recurrent symptoms?
		What happens if the symptoms return?
		Similar diagnosis?
		Change in therapy or same as before?
AMR	What are your thoughts on AMR in general?	Influence of antibiotic use?
		The microbiological laboratory?
		How can you curb the trend?
Source of information and knowledge	How do you decide on treatment	Contact with professional organizations?
		Pharmaceutical companies? Treatment guidelines from authorities?
		Any antibiotic policy from authorities?
Results of previous study showing high antibiotic prescribing for acute diarrhea	Why is there such high prescribing?	How could we reduce it?
	Same questions as mentioned for FGD	Put in questions as for FGDs

FGDs=Focus group discussions, AMR=Antimicrobial resistance

Topic guide for semi-structured interviews for pharmacists: Acute diarrhoea in children

Area	Introductory questions	Probing questions
Introduction	Could you please think of a child with acute diarrhea for last one or two days without mucus or blood in the stool?	Typical patient?
		Do you often encounter patient like this?
		Symptoms?
		Diagnosis?
Treatment	How did you decide on the treatment for this patient?	Symptoms?
		Direct/delayed treatment?
		Patient/parent attitudes?
		Any tests?
		Choice of drug?
		How often you use that drug?
		Any other alternative drug you choose?
		Treatment duration?
	The prescriptions from doctors you generally receive for such patients?	Any tests?
		Choice of drug?
		How often you observe that drug being prescribed?
		Any other alternative drug commonly prescribed?
		Treatment duration?
		Any other advice written?

Contd...

Contd...

Area	Introductory questions	Probing questions
Effect of treatment	How do you usually experience the effect of the treatment?	Beginning of improvement?
		Complete cure?
		Recurrent symptoms?
		What happens if the symptoms return?
		Change in therapy or same as before?
AMR	What are your thoughts on AMR in general?	Influence of antibiotic use?
		The microbiological lab?
		How can you curb the trend?
Source of information and knowledge	How do you decide on treatment	Pharmaceutical companies?
		Copying the prescription of doctors? Treatment guidelines from authorities? Any antibiotic policy from authorities?
Results of previous study showing high antibiotic prescribing for acute diarrhoea	Why is there such high prescribing?	How could we reduce it?
		Put in questions as for FGDs

FGDs=Focus group discussions, AMR=Antimicrobial resistance

References Mentioned in the Topic Guide

1. Kotwani A, Holloway K. Antibiotic prescribing practice for acute, uncomplicated respiratory tract infections in primary care settings in New Delhi, India. Trop Med Int Health 2014;19:761-8.
2. Kotwani A, Chaudhury RR, Holloway K. Antibiotic-prescribing practices of primary care prescribers for acute diarrhea in New Delhi, India. Value Health 2012;15:S116-9.
3. Farmer AP, Légaré F, Turcot L, Grimshaw J, Harvey E, McGowan JL, *et al*. Printed educational materials: Effects on professional practice and health care outcomes. Cochrane Database Syst Rev 2008;3:CD004398.
4. WHO. Medicines use in Primary Care in Developing and Transitional Countries. Fact Book Summarizing Results from Studies Reported Between 1990 and 2006. WHO/EMP/MAR/2009.3. Available from: http://www.apps.who.int/medicinedocs/documents/s16073e/s16073e.pdf. [Last accessed on 2014 Jul 18].
5. Holloway KA, Ivanovska V, Wagner AK, Vialle-Valentin C, Ross-Degnan D. Have we improved use of medicines in developing and transitional countries and do we know how to? Two decades of evidence. Trop Med Int Health 2013;18:656-64.