

Research questionnaire of interaction, transmission and intervention of antibiotics resistance among animals and humans in the rural area of Shandong Province

Village: _____

Name: _____

No. : _____

Date of investigation: _____Year____Month____Day

Data collector : _____

Data checker : _____

Section one: Basic information and life habits of individuals (16 points)

No.	Question	Answer Type	Comments
1.1	Gender of respondent	① Male ② Female	
1.2	Age of respondent	_____ years old	
1.3	How many people live with you in the past 6 months.		
1.4	What are the age of other people in the household?	① _____ ② _____ ③ _____ ④ _____ ⑤ _____	
1.5	What are relation to you of other people in the household?	① _____ ② _____ ③ _____ ④ _____ ⑤ _____	
1.6	Does anyone in your household work outside the village?	① Yes, I do ② Yes, somebody else in my household does ③ No, nobody does	Tick all that apply
1.7	Education level of respondent	① illiterate/half illiteracy ② primary school ③ middle school ④ high school/technical school/technical secondary school ⑤ college ⑥ university or above	

1.8	Occupation of respondent	① farmer without a household farm ② small scale household farm ③ big scale commercial farm ④ worker(not on a farm) ⑤ administrator of village ⑥ teacher ⑦ village doctor ⑧ student ⑨ military service ⑩ businessman (11) other (specify)	
1.8.1	Do you have any contact with animals on most days?	① Yes, I do ③ No	
1.8.2	How often do you visit farms or households with animals, outside of your village?	① Every day ② At least once a week ③ At least once a month ④ At least once every six months ⑤ Less often than once every six months	
1.8.3	Does anyone in your household have any contact with animals on most days?	① Yes, I do ② Yes, somebody else in my household does ③ No	Tick all that apply

1.9	Are you covered by any medical insurance?	① New rural cooperative medical insurance ② Medical insurance for urban residents ③ Commercial medical insurance ④ At my own expense (no medical insurance) ⑤ Other (specify)	
1.10	Total (gross) yearly income of household during the last year	_____RMB	Including job, income from farm
1.11	Do you eat meat?	① Yes ② No (skip to 1.10)	
1.11.1	Do you eat mostly market-bought meat or meat from home-raised animals?	① Market-bought ② Home raised ③ Half half	
1.11.2	How many days do you eat pork in a week?	_____ days	Write a number, not a range
1.11.3	How many days do you eat chicken in a week?	_____ days	Write a number, not a range
1.12	How many days do you eat raw vegetables in a week? (e.g. lettuce, raw cucumber etc.)	_____ days	Write a number, not a range

1.13	Where do you mostly get your daily-use water from?	1.13.1 Source of water for drinking	1.13.2 Source of water for washing and rinsing	1.13.3 Source of water for rinsing vegetables	1.13.4 Source of water for washing clothes	1.13.5 Source of drinking water for pigs	1.13.6 Source of water for cleaning pigs (e.g. for cleaning the pigsty)	
		① Home tap water ② Private well ③ Shared well ④ River water ⑤ Other (specify) ⑥ Not relevant/I have no pigs						
1.14	How often do you drink unboiled water taken directly from a tap or well?	① Every day ② At least once a week ③ At least once a month ④ Less than once a month ⑤ I never do this						Select one
1.15	Do you usually wash your hands:	1.15.1 Before meals	1.15.2 After going to the toilet	1.15.3 Before working with the pigs	1.15.4 After working with the pigs			
		① Always ② Frequent ③ Often ④ Sometimes ⑤ Never ⑥ Not relevant						
1.16	How do you usually wash your hands: (for each option where the answer was Always, Often, or Sometimes to 1.13)	1.16.1 Before meals	1.16.2 After going to the toilet	1.16.3 Before working with the pigs	1.16.4 After working with the pigs			

		① Wash with soap ② Wash with water only ③ Other (specify) ④ Do not wash hands ⑤ Not relevant/I have no pigs	
1.17	What kind of toilet do you mostly use?	① Self-owned toilette in the yard or outside of the house ② Toilet inside the house ③ Outdoor shared toilet	
1.17.1	Is the toilet with water-flush or aqua privies?	① Water-flush ② Traditional dry type	
1.18	What animals, and roughly how many of each, do you have in your household and household farm now?	chicken _____ duck _____ dog _____ cat _____ goat _____ sheep _____ cow _____ donkey _____ mink _____ other _____	
1.19	Do you use human faecal or animal manure as fertilizer?	① Human faecal ② Animal faecal ③ Human faecal and animal faecal ④ No	Tick all that apply

Section two: Household health status (4 questions)

No.	Question	Answer type			Comments
			01 Interviewee	02 Other members of household	
2.1	Have you used any medicines (including traditional Chinese medicines) to prevent infections in the past six months?	① Traditional Chinese products ② Western medicines ③ No			Tick all that apply
2.2	Have you or your families taken any medicines during the last month (orally) due to newly emerged diseases, not including chronic diseases ?	① Yes, in the past week ② Yes, in the past month ③ No (skip to 2.3)			Select one
2.2.1	For what kind of disease did you take the medicine(s)?	Open (can include multiple)			
2.2.2	Which medicine(s)?	Write the name of medicine (can be multiple)			

2.2.3	Where did you obtain the medicine(s)?	①village clinic ②town clinic ③county hospital ④Pharmacy in village ⑤Pharmacy in town/city ⑥Other (specify)			Tick all that apply
2.3	Have you or your family had any IV infusions or injections in the past six months?	①yes ②no (skip to 2.4)			
2.3.1	When was the most recent IV infusion or injection?	①In the past week ②In the past month ③Over a month ago			Select one
2.3.2	Reason for the most recent IV infusion or injection	Open			
2.3.3	Place	①village clinic ②town clinic ③county hospital ④Other (specify)			Select one
2.3.4	Medicine(s) in the infusion/injection	Open			
Most recent stay in hospital					
2.4	Have you or someone in your family stayed overnight in hospital in the past year?	①yes ②no (skip to 2.5)			

2.4.1	When was the most recent hospital stay?	①In the past week ②In the past month ③Over a month ago			Select one
2.4.2	Reason for most recent stay in the hospital	Open			
2.4.3	Type of hospital	①Village clinic ②Town clinic ③County hospital ④Above county level hospital ⑤Other (specify)			Select one
2.4.4	Did you have an operation?	①yes ②no			
2.4.5	How many days did you stay in the hospital?				

Section three: Knowledge, attitude and practices towards use and resistance of antibiotics (26 questions)

No.	Question	Answer type	Comments
Knowledge			
3.1	Do you know what antibiotics are?	①yes (please describe) ②no	
Please point out which of the following drugs are antibiotics (maximum of three)? (At the same time, the interview make a mark on the drugs that are listed and mark with ✓)			
	3.1.1 Amoxicillin	3.1.2 Paracetamol	3.1.3 Simvastatin
			3.1.4 Qingkailing Capsule
	3.1.5 Erythromycin	3.1.6 Cephadrine	3.1.7 Aspirin
			3.1.8 Cephalexin
	3.1.9 Dioctahedral smectite	3.1.10 Compound liquorice tablets	3.1.11 Ibuprofen
			3.1.12 Compound acetaminophen
3.2 Please point out which of the following drugs are anti-inflammatory drugs (maximum of three)? (At the same time, the interview make a mark on the drugs that are listed and mark with ✓)			
	3.2.1 Amoxicillin	3.2.2 Paracetamol	3.2.3 Simvastatin
			3.2.4 Qingkailing Capsule
	3.2.5 Erythromycin	3.2.6 Cephadrine	3.2.7 Aspirin
			3.2.8 Cephalexin
	3.2.9 Dioctahedral smectite	3.2.10 Compound liquorice tablets	3.2.11 Ibuprofen
			3.2.12 Compound acetaminophen
After 3.2, say to all participants: “As a reminder, antibiotics are medications that are used to treat bacteria cause some infections/transmitted diseases”			
3.3	Antibiotics should always be used whenever an adult has a fever	①yes ②no ③I don't know	

3.4	Antibiotics should always be used whenever a child has a fever	①yes ②no ③I don't know	
3.5	Can taking antibiotics in advance protect people from the common cold?	①yes ②no ③I don't know	
3.6	Can antibiotics prevent common cold developing into more severe disease such as pneumonia?	①yes ②no ③I don't know	
3.7	Do you feel that the same antibiotic has less effect than before if you use it again?	①yes ②no ③I don't know	
3.8	Bacteria can become resistant to antibiotics	①yes ②no ③I don't know	
3.9	Humans can become resistant to antibiotics	①yes ②no ③I don't know	
3.10	Animals can become resistant to antibiotics	①yes ②no ③I don't know	

3.11	Can bacteria which have resistance towards antibiotics infect you or your family ?	①yes ②no ③I don't know	
3.12	Where do you mainly hear about antibiotics resistance?	①TV ②Radio ③Internet ④Conversation with other people ⑤Other (specify)	
	Attitudes		
3.13	Please let us know your attitude towards antibiotics if you or your families suffer from the following diseases:		
3.13.1	common cold	①have to use antibiotics every time ②have to use antibiotics most times ③have to use antibiotics sometimes ④there is no need to use antibiotics ⑤I don't know	
3.13.2	Sore throat	①have to use antibiotics every time ②have to use antibiotics most times ③have to use antibiotics sometimes ④there is no need to use antibiotics ⑤I don't know	

3.13.3	hypertension	①have to use antibiotics every time ②have to use antibiotics most times ③have to use antibiotics sometimes ④there is no need to use antibiotics ⑤I don't know	
3.13.4	pneumonia	①have to use antibiotics every time ②have to use antibiotics most times ③have to use antibiotics sometimes ④there is no need to use antibiotics ⑤I don't know	
3.13.5	Diabetes mellitus	①have to use antibiotics every time ②have to use antibiotics most times ③have to use antibiotics sometimes ④there is no need to use antibiotics ⑤I don't know	
3.13.6	asthma		
3.13.7	diarrhea		
3.13.8	urinary tract infection		

3.14	Would you trust the village doctor if they give you medicines when you or your family are suffering from above diseases such as common cold, diarrhea or pneumonia?	①trust ②do not trust ③I don't know	
3.15	Would you trust the county/town doctors if they give you medicines when you or your family are suffering from above diseases such as common cold, diarrhea or pneumonia?	①trust ②do not trust ③I don't know	
3.16	Would you trust the staff working at the pharmacy if they give you medicines when you or your family are suffering from above diseases such as common cold, diarrhea or pneumonia?	①trust ②do not trust ③I don't know	
3.17	I expect the doctor to prescribe me antibiotics when I feel it is needed.	①agree ②disagree ③I don't know	
3.18	Antibiotic can only be purchased with prescriptions from doctors.	①agree ②disagree ③I don't know	
3.19	When taking antibiotics, even if you start to feel better, you should insist on taking the full course based on doctor's advice.	①agree ②disagree ③I don't know	
3.20	Do you worry about antibiotic resistance?	①Yes ②No ③I don't understand	

3.21	I believe that my own practices towards controlling antibiotics resistance is very important	①agree ②disagree ③I don't know	
	Reported practices		
3.22	Have you ever purchased antibiotics at pharmacy during the past year?	①yes ②no (skip to 3.24) ③I don't know(skip to 3.24)	
3.22.1	In what type of pharmacy store did you purchase antibiotics?	①pharmacy in the village ②pharmacy in the town ③pharmacy in the city	In order
3.22.2	What antibiotics did you purchase? (list up to three they can remember)		
3.22.3	Did you have a prescription from a doctor when you purchased the antibiotics?	① Yes, for all of them ② Yes, for most of them ③ Yes, for some of them ④ No, not for any	
3.22.4	What are the main reasons why you would take antibiotics without visiting the doctor?	①I won't do that ②I have no time to see a doctor ③I don't feel sick enough to see a doctor ④ I have leftover antibiotics from previous illness at home for similar symptoms ⑤ It's more convenient to buy drugs from pharmacy stores ⑥ I don't have money to visit a doctor ⑦other	

3.23	When do you normally stop taking antibiotics for an illness?	①when the symptoms start to disappear ②when I finish the amount of drugs that I was told to take ③other	
3.24	In the past year, have you stored any antibiotics that are left over after an illness?	①yes ②no ③I don't know	
3.24.1	Have you already, or will you use these left-over antibiotics again, when you become ill?	①yes ②no ③I don't know	

Section four: Prioritization during health seeking behavior (2 questions)

No.	Question	Answer type	Comments
4.1	Which of the following are important to you when you suffer from an infection such as common cold or pneumonia?	① getting better quickly ② knowing what caused the illness ③ being able to work ④ taking medicines ⑤ cost of medicines ⑥ others	Tick all that apply
4.1.1	Is there anything else that is important to you when you are suffering from an infection?	Open	
4.1.2	Which of these is most important to you?	Select the one that is most important from 4.1 or 4.1.1	
4.2	Which of the following are important to you when you visit the doctor and are suffering from an infection such as common cold or pneumonia?	① physical examination ② obtaining information about the cause of the illness ③ obtaining information about the duration of the illness ④ if the doctor is going to prescribe me any antibiotics ⑤ obtaining information about self-management ⑥ other (please specify)	Tick all that apply
4.2.1	Is there anything else that is important to you when you visit the doctor and are suffering from an infection?	Open	
4.2.2	Which of these is most important to you?	Select the one that is most important from 4.2 or 4.2.1	Tick all that apply

Section five: Farm characteristics and pig health (8 questions)

No.	Question	Answer type	Comments
5.1	Do you have pigs in your household now?	① Yes (skip to 5.1) ② No	
5.1.1	Have you had any pigs in your household in the past five years?	① Yes (skip to section 6, don't ask section 7) ② No (skip to section 8)	
5.2	How many years have you had pigs in your household for?	____ years	
5.3	What type of pigs do you have?	① Sows, with piglets that I raise to slaughter ② Piglets that I buy and raise to slaughter ③ Sows, with piglets that I sell after weaning ④ a combination of 1) and 3) ⑤ Other (specify)	
5.4	How many pigs do you have now?	Numbers of piglets____ Weaners____ Slaughter pigs (weaned pigs)____ Sows (for breeding) ____ Boars (for breeding)____	
5.5	Have you had any training about raising pigs?	① Yes, from a relative ② Yes, from another person in the village ③ Yes, at a professional course (Days____) ④ Yes, other (specify) ⑤ No, learned by myself	Tick all that apply

5.6	What are the two most common diseases in your pigs?	Open	
5.7	Have any of your pigs been unwell in the past month?	① Yes, in the past week ② Yes, in the past month ③ No (skip to 5.8)	
5.7.1	What were the diseases in the past month?		
5.7.2	What were their symptoms?		
5.7.3	How many days on average were they ill for?	____ days	____ days
5.7.4	Did you give them any medication?	① Yes (specify) ② No	① Yes (specify) ② No
5.8	Have you given any healthy pigs any medications in the past month (including traditional Chinese medicines)?	① Yes (specify all medications given and why_____) ② No	
5.9	Which of the following are important to you when your pigs are suffering from an infection, such as diarrhea?	① Knowing what caused the illness ② Knowing how severe the illness is ③ How long it takes them to recover ④ The cost of medicines ⑤ Preventing spread of the infection to other pigs ⑥ That I will lose all my possible profit	Tick all that apply

		from my pigs	
5.9.1	Is there anything else that is important to you when your pigs are suffering from an infection?	Open	
5.9.2	Which of these is most important to you?	Select the one that is most important from 5.8 or 5.8.1	

Section six: Knowledge, attitudes and practices towards pig antibiotic use and antibiotic resistance (14 questions)

No.	Question	Answer type	Comments
	Start with introduction to antibiotics again:	As I said earlier, antibiotics are medications that are used to treat bacteria cause some infections/transmitted diseases	
	Knowledge		
6.1	Can you mention two pig diseases that are normally treated with antibiotics?	Open	
6.2	Should antibiotics be used whenever a pig stops eating its feed	① Yes ② No ③ I don't know	
	Attitudes		
6.3	I know when my pigs need medications	① agree ② disagree ③ I don't know	
6.4	It is good to keep left over antibiotics at the farm to use them again in the future	① agree ② disagree ③ I don't know	
6.5	I would trust the vet if they decided to give a medication to a pig with an infection	① agree ② disagree ③ I don't know	
6.6	It is expensive to get advice on pig health and management from a vet	① agree ② disagree ③ I don't know	

6.7	It is expensive to buy antibiotics for my pigs	<input type="radio"/> agree <input type="radio"/> disagree <input type="radio"/> I don't know	
	Practices (skip if no pigs in household currently)		
6.8	Do you usually seek advice from other people if your pigs are sick?	<input type="radio"/> Yes, from vet <input type="radio"/> Yes, from animal pharmacy <input type="radio"/> Yes, from other farmers <input type="radio"/> Other (specify) <input type="radio"/> No	Tick all that apply
6.9	Do you have these behaviors when you use antibiotics?	<input type="radio"/> Always or often in feed, to keep the pigs healthy and prevent disease <input type="radio"/> For all pigs in a pen, when some of the pigs in the pen are sick <input type="radio"/> Only in pigs showing disease	Select one
6.9.1	Are there any other reasons why you use antibiotics?	<input type="radio"/> yes <input type="radio"/> no	
6.10	Where do you most commonly buy antibiotics for your pigs?	<input type="radio"/> From a vet <input type="radio"/> From an animal pharmacy <input type="radio"/> From a human pharmacy <input type="radio"/> From the market <input type="radio"/> From another household farm <input type="radio"/> Other (specify)	Tick all that apply
6.11	What are the three antibiotics that you most commonly use for your pigs?	Open (list up to three)	

6.12	Do you use traditional Chinese medicines for your pigs?	① Yes ② No (skip to 6.13)	
6.12.1	What are the main reasons you use traditional Chinese medicines for your pigs?	Open	
6.13	In the past year, have you purchased antibiotics for your pigs without first speaking with a vet/?	① Yes ② No	
6.14	What are the main reasons why you would give antibiotics to your pigs without first speaking with a vet/animal health advisor?	Open	

Section seven: Biosecurity on household farms (7 questions)

No.	Question	Answer type	Comments
7.1	What feed do you use for your pigs?	① Own feed ② Feed from another farmer ③ Commercial feed ④ Other (specify)	Tick all that apply
7.2	Do you always clean the pens more thoroughly when they pens are empty?	① Yes ② No	
7.3	What do you clean the pens with when you clean them more thoroughly?	① With water first, then disinfectant ② With disinfectant only ③ With soap and water ④ With only water ⑤ Other (specify)	Select one
7.4	How often do you buy pigs?	① Many times a year ② Once a year ③ Once every two years ④ Less often than once every two years	Select one
7.5	Where do you normally buy pigs from?	① My village ② Another village ③ A mixture of villages ④ Other (specify)	Select one
7.5.1	What sort of place do you normally buy pigs from?	① Village farm	Y/N for each option

		② Commercial farm ③ Market ④ Other (specify)	
7.6	Do you keep newly bought pigs separate from other pigs for some time?	① Yes (how long for _____) ② No	
7.7	On average, how often do you sell animals?		

Section eight: Medicines currently in household (2 points)

No.	Question	Answer type		Comments
8.1	Which medicines do you have in your home at the moment for you or your family?	Please write down ALL medicines (names only).	For each medicine, ask if they think it is an antibiotic and record Yes, No or Don't know	

8.2	Which medicines do you have in your home at the moment for your pigs?	Please write down ALL medicines (names only).	For each medicine, ask if they think it is an antibiotic and record Yes, No or Don't know	
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