Perceptions and expectations of patients and providers towards antibiotic prescribing

HOW WAS THE STUDY DONE?

The study was conducted in four socioeconomically diverse wards in metropolitan South Africa in the cold season in 2017. A combination of qualitative research methods were used to gain in-depth information and insight into patient expectations and provider practices:

- Doctor-patient consultations were observed at eight public and private clinics to explore communication, examination and advice on presentation with a respiratory infection.
- In-depth interviews were conducted with adult patients and guardians (usually mothers or grandmothers) bringing small children to a clinic, often while they were waiting to be seen by a doctor or nurse practitioner.
- Key informant interviews were conducted with advocates of antibiotic guardianship, including senior clinicians, government programme officers and pharmacists.

Observations and interviews highlighted diverse expectations of care, prescribing and adherence, and drew attention to confusion between immunity and resistance.

WHAT DID THE STUDY FIND?

Prescribing practices

Patients, especially in poorer areas, often presented late and were usually assessed on the basis of history of symptoms alone, in very brief interviews. In observations, patients were usually passive and did not ask for antibiotics, although in interviews providers said that this occurred. Providers explained they did not identify infection through laboratory services because of their experience of poor quality service and delayed or lost reports. Providers were also concerned that patients would not return as advised, and this sometimes led them to treat pre-emptively. Patients in both sectors were mostly provided with a cough syrup, paracetamol and an antibiotic.

Some private sector doctors provided a delayed script "to discourage use but with backup." Others discussed the condition with patients and felt that they had to prescribe an antibiotic. Patients did not always ask for a script.

> *"If I have a patient who is coming, say, from … a long distance from here, there are financial constraints on the patient, they have to pay substantial amount of money for transport to get here, and get back home. Then if there is a feeling on my side that, you know, I would want to see this patient on an antibiotic – that will sometimes make me say "okay, I will use an antibiotic here"*
> ***(Provider)***

Patient practices and expectations

Most patients explained that they had used home remedies and over-the-counter products before consulting.

In general, women emphasized that they just "worked through" coughs and colds, and some, in both public and private practices, had searched on the web to check their symptoms before deciding what to do. They were most concerned with their children's health. In general, therefore, people visited a health provider when they felt their own efforts were having little effect.

In both public and private clinics, some patients expected and asked for antibiotics. A minority challenged their provider when they were given an antibiotic. A few indicated that they came to the healthcare provider for advice and confirmation, and so were happy with medication for symptomatic relief only.

> *"Sometimes you get it right, sometime you don't get it right … the only way to be sure what is wrong with the child is to take her to the doctor. Let the doctor do thorough check up and then, only then you get problem solved*
> *(Patient)*

What do patients do with antibiotics?

Most patient interviewees stated that they always finished the course, even if they felt better beforehand.

However, a few ceased taking antibiotics once they felt better, saving their left-over medicines for another time.

Most were clear that antibiotics should not be shared with other people. They emphasised that antibiotics should be kept safely in a cool place, and that any remaining drugs should be disposed (returned to a pharmacist or flushed down the toilet).

> *"As long as you are feeling fine, I think, well, I'll stop. And then I'll have them, because you know, you'll check the expiry date. And then in case sometimes, that (sickness) comes back, I'll use them again. I know that they say finish the course but I don't finish the course (Patient)*

Understanding resistance

Most patients, nurse practitioners and some GPs were confused about antibiotic resistance.

Providers understood resistance as a "patient problem" caused by lack of adherence to prescription, and associated it with individual, not pathogenic resistance.

Patients largely understood resistance as the development of immunity in an individual against a particular drug, although some recognised bacterial resistance also.

Expert interviewees argued that resistance was a provider problem, and providers needed to be educated.

> *"I suppose it's just people who take antibiotics all the time and so their bodies will … And the bacteria are able to build resistance against it, especially if you don't finish the course (Patient)*

WHAT ARE THE IMPLICATIONS?

Patients, health providers and experts all emphasised the need for health education to explain best practice. Education and health promotion efforts needs to better explain antibiotic resistance.

> *"I think that practitioners need to be more vigilant of their use of antibiotics; they need to constantly know the bugs that are out there, what is used to treat them. And then patients need to be educated. Patients need to be educated to the fact that there is a high antibiotic resistance and they need to stop demanding antibiotics … we all need to be educated. (Provider)*