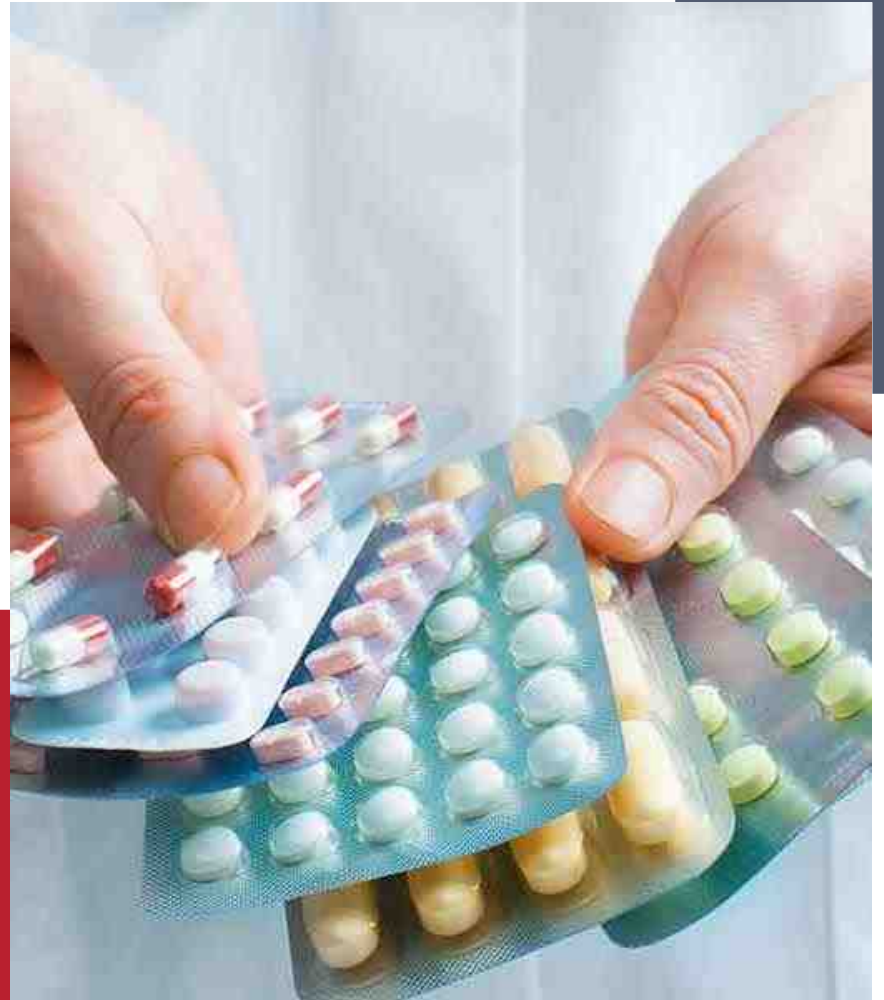


# Barriers to optimising prescribing of broad- spectrum antibiotics in hospitals

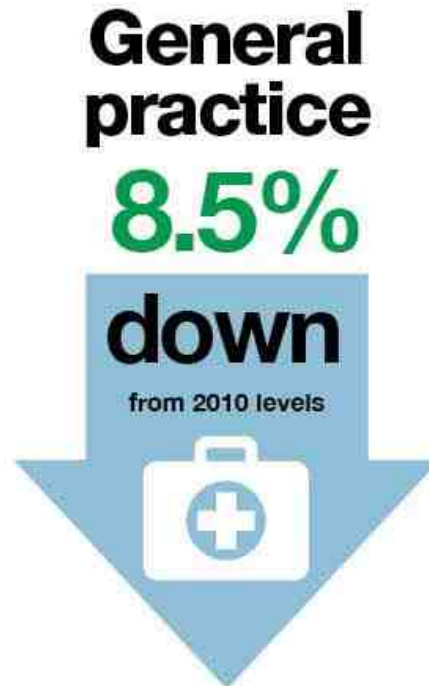
A qualitative study in UK,  
South Africa and Sri Lanka

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# Antibiotic overuse is a significant problem...

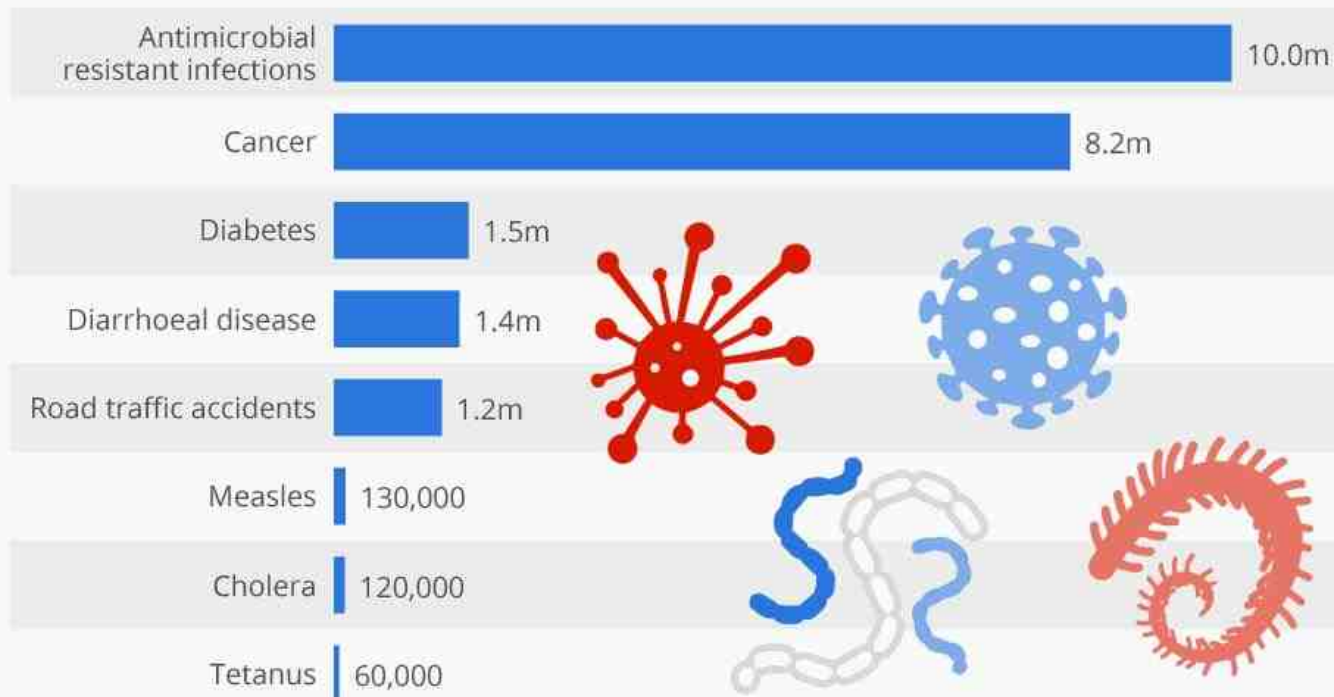
Proportion of broad spectrum antibiotics/ total antibiotics, presented as defined daily dose (DDD) per 1,000 people living in England per day



...with potentially catastrophic consequences

## Deaths From Drug-Resistant Infections Set To Skyrocket

Deaths from antimicrobial resistant infections and other causes in 2050



@StatistaCharts Source: Review on Antimicrobial Resistance

statista

# Social dilemma of antibiotic prescribing



# Social dilemma of antibiotic prescribing

Short-term interests of individual patients

Long-term interests of society



# Research aims

- Study barriers to reducing broad-spectrum antibiotic use in hospitals
- Employ qualitative research methods
- Investigate cross-cultural differences
- Include both high and low/middle income countries in analysis



# Method

- Semi-structured interviews with frontline prescribers
- 2-3 hospitals per country
  - Mix of private and public sector
  - Mix of rural and urban hospitals
- 6-8 interviews per hospital
- Qualitative analysis



# What factors shape overuse of antibiotics?

- Visibility of the problem of AMR
- Resources, uncertainty and risk
- Orientation to collective solutions
- Incentive structure in private hospitals





# Visibility of the problem of AMR



# Visibility of the problem of AMR

DO YOU WORRY ABOUT THE PROBLEM  
OF ANTIMICROBIAL RESISTANCE IN  
YOUR DAY-TO-DAY PRACTICE?

*“Not day-to-day, I have to say. ... For patients in front of me I still have enough faith in antibiotics that they’re going to work, driven on by the fact that broadly speaking they do still work.”*

*(Doctor, UK)*

# Resources, uncertainty and risk



Sri Lanka,  
Nuwara Eliya

# Resources, uncertainty and risk

HOW IMPORTANT DO YOU FEEL IT IS TO COLLECT MICROBIOLOGY SPECIMEN IN MAKING ANTIBIOTIC PRESCRIBING DECISIONS?

*“[...] It is very important but we do have problems with that [...] there are some issues with us our set up as well because even if we do want to go for all these isolations, I don't think... sometimes that there are restrictions on maybe the culture bottles available, the resources available.”*

(Doctor, Sri Lanka)

# Collective orientation & consensus



Sri Lanka,  
National  
Hospital,  
Colombo

# Collective orientation & consensus

CAN YOU TELL ME ABOUT HOW YOU DECIDE WHICH ANTIBIOTIC TO USE?

*“So if the patient is neutropenic, we usually give an empiric broad-spectrum regimen, containing something like one of the well-established types of treatment that would be in line with the IDSA [Infectious Diseases Society America] guidelines. So that would be a set of guidelines that we would often refer to, unless there’s a more relevant guideline such as one from the ACCP, the American College of Chest Physicians for a lung problem. And I also use the Sanford Guide as a rule. I’ve got it on my iPhone, and I also use UpToDate on my iPhone. [...] Well, there are [local guidelines], but I don’t use them.”*

(Doctor, South Africa)



# Incentive structure in private hospitals



Sri Lanka,  
Lanka Hospital,  
Colombo

South Africa, Mediclinic  
Panorama, Cape Town



# Incentive structure in private hospitals

*“[...] , but the problem is most of the doctors practicing privately, they are prescribing these drugs, and patients getting one or two doses and then they stop the treatment, and then they are appearing in the hospital.”*

(Doctor, Sri Lanka)



# Conclusions

- Antibiotic overprescribing as a special case of overuse – a dilemma where individual interests and the collective good of society, are in tension
- National and local context within which prescribing takes place shapes how prescribers engage with this dilemma
- Collective solutions are important but need to be designed to fit context

# Thank you

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Sri Lanka

South Africa