DATA ANALYSIS AND VISUALIZATION

PIPELINE OF ANTIMICROBIAL AGENTS IN CLINICAL DEVELOPMENT (WHO – NOV 2021)

CONTRIBUTORS

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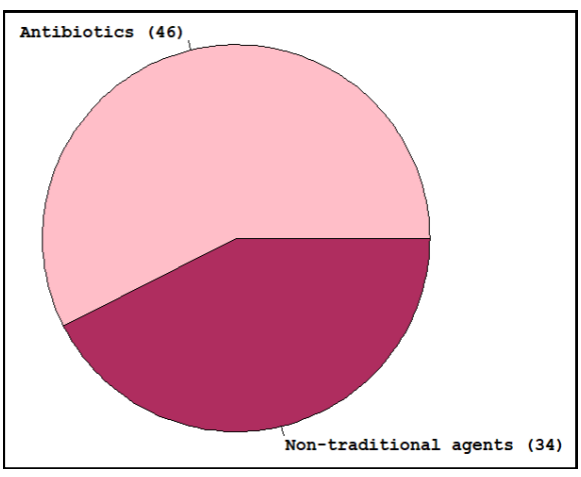
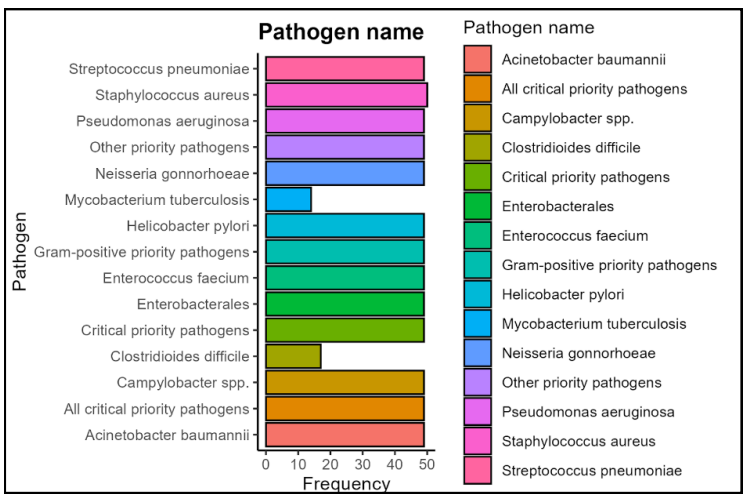
ANTIMICROBIAL PRODUCT – TYPES



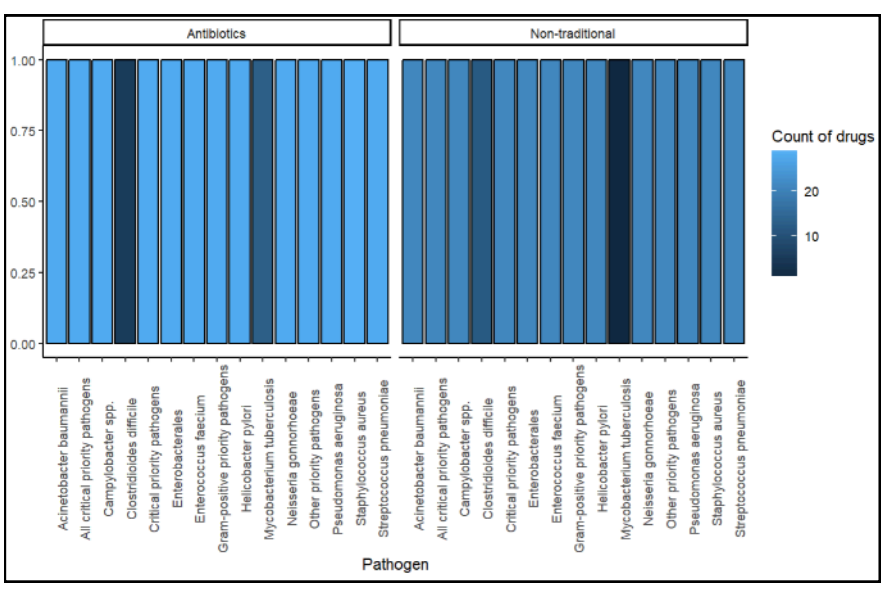
A total of **80** antimicrobial products.
46 - Antibiotics; **34** - Non-traditional

TARGET PATHOGENS



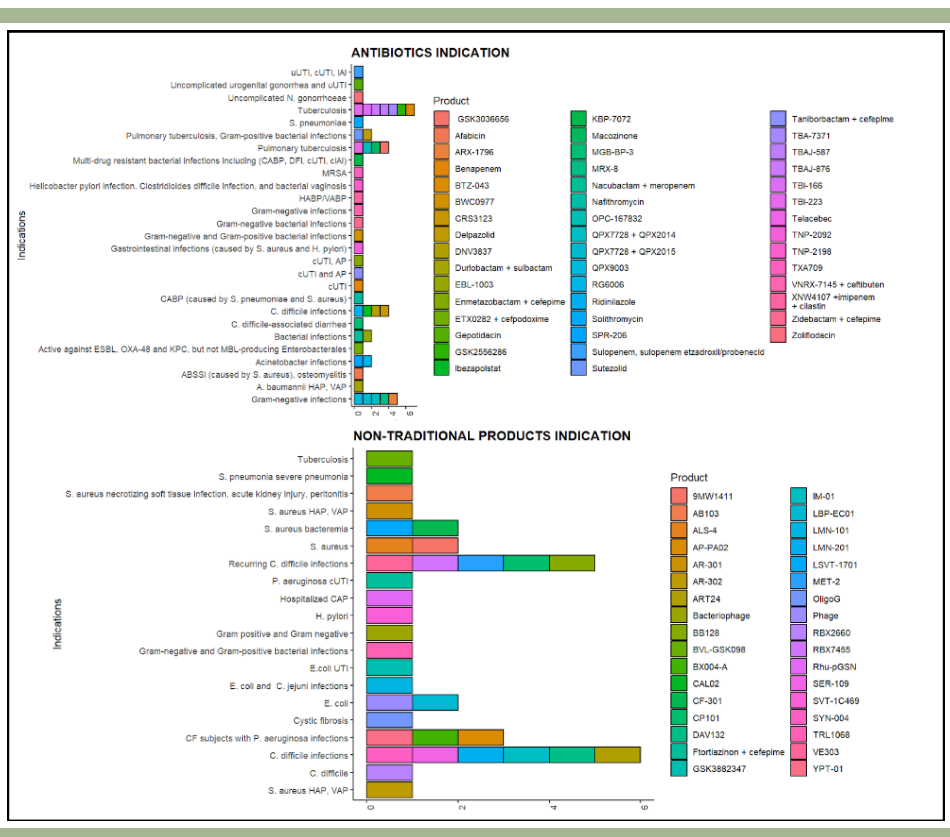
Most targeted pathogen - ***Staphylococcus aureus***.
Least targeted pathogen - ***Mycobacterium tuberculosis***.

SPECTRUM OF ANTIMICROBIAL PRODUCTS AGAINST PATHOGENS



The spectrum of antimicrobial products are **broad** against **priority pathogens**. However, only **limited** number of antibiotics and non-traditional are effective against ***Mycobacterium tuberculosis*** and ***Clostridium difficile***.

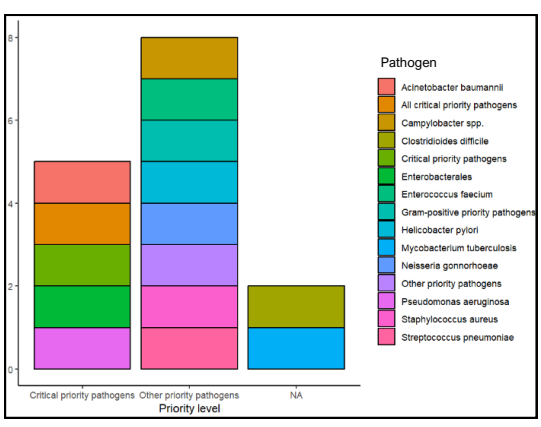
More antibiotics target ***Mycobacterium tuberculosis*** when compared to non-traditional. The reverse holds true for ***Clostridium difficile***.



ANTIBACTERIAL INDICATIONS

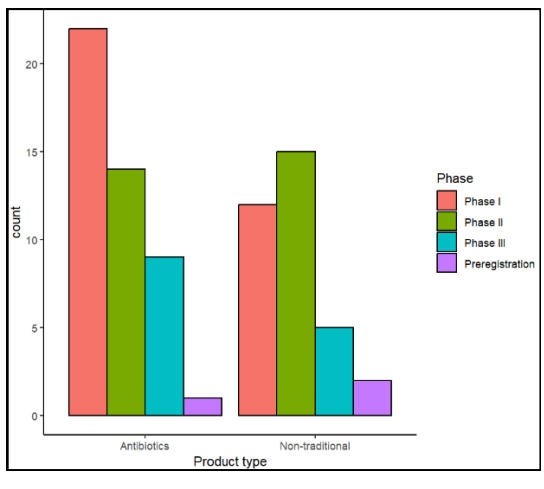
An **antimicrobial indication** refers to specific condition or infection for which an antimicrobial agent is recommended or prescribed.

PRIORITY LEVEL OF PATHOGENS



Critical priority pathogens pose urgent threat due to its high AMR. Pathogens like ***Pseudomonas aeruginosa***, ***Enterobacterales***, ***Acinetobacter baumannii*** falls under this category.

CLINICAL DEVELOPMENT PHASE OF ANTIMICROBIAL PRODUCTS



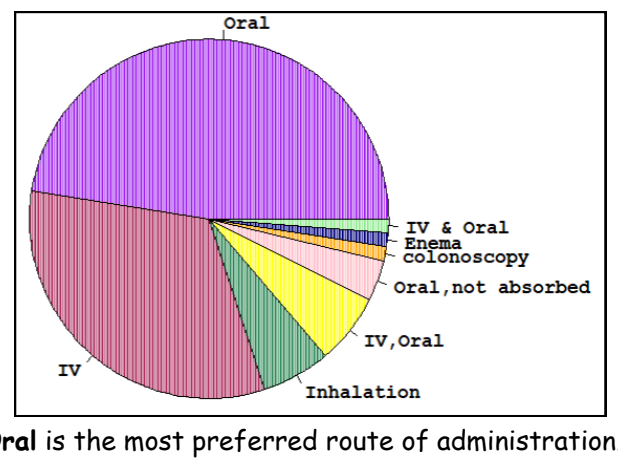
Antibiotics

Phase I	22
Phase II	14
Phase III	9
Pre-registration	1

Non-traditional

Phase I	12
Phase II	15
Phase III	5
Pre-registration	2

ROUTE OF ADMINISTRATION



Oral is the most preferred route of administration.

INNOVATIVENESS

INNOVATIVE	PRODUCTS (in numbers)
Yes	17
No	23
Inconclusive	6
NA	34

FOR DETAILED INFORMATION: https://github.com/BLakshana/Hackbio_cancer_internship/tree/main/STAGE2_DATA-VISUALIZATION%20OF%20ANTIMICROBIAL%20PRODUCTS%20IN%20CLINICAL%20DEVELOPMENT%20(WHO-Nov%202021)