

Standardisation of an antimicrobial indication list

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Conflicts of interest

- None



What is AMS?

A set of coordinated activities that support and promote optimal antimicrobial prescribing and use to:

- ensure **safe and appropriate therapy** to improve patient outcomes and reduce harm
- **prevent the emergence of AMR** and **decrease preventable HAIs**, combining efforts with IPC, hand hygiene and surveillance

AMS activities

- Develop and promote the use of guidelines
- Review antimicrobial prescribing and use
- Use data to support appropriate prescribing

Timely and accurate data is required

What's the Issue?

Indication documentation is important

- Needed for effective communication among clinicians
- If absent, too broad, or inaccurate: unable to evaluate prescription appropriateness

Why Does This Matter?

1. AMS and Patient Safety

- Ensures antimicrobials are used appropriately – **Poor documentation = Harm**

2. Data Integrity

- Uncoded, free-text data are vulnerable to errors, difficult to track, audit, and improve antimicrobial use.
- Inconsistent or poor-quality data can ultimately harm patients by enabling inappropriate prescriptions.

3. Wider Impact

- Harder to standardise care, conduct research, and share data across institutions.

Challenges

Humans

1. Time Constraints

- Clinicians are already under significant pressure, and detailed documentation might feel like an added burden

2. Lack of Awareness or Education

- Not fully aware of the critical role indication documentation plays in AMS and patient safety.
- Training on the importance of this process may be limited or inconsistent, leading to under-prioritisation.



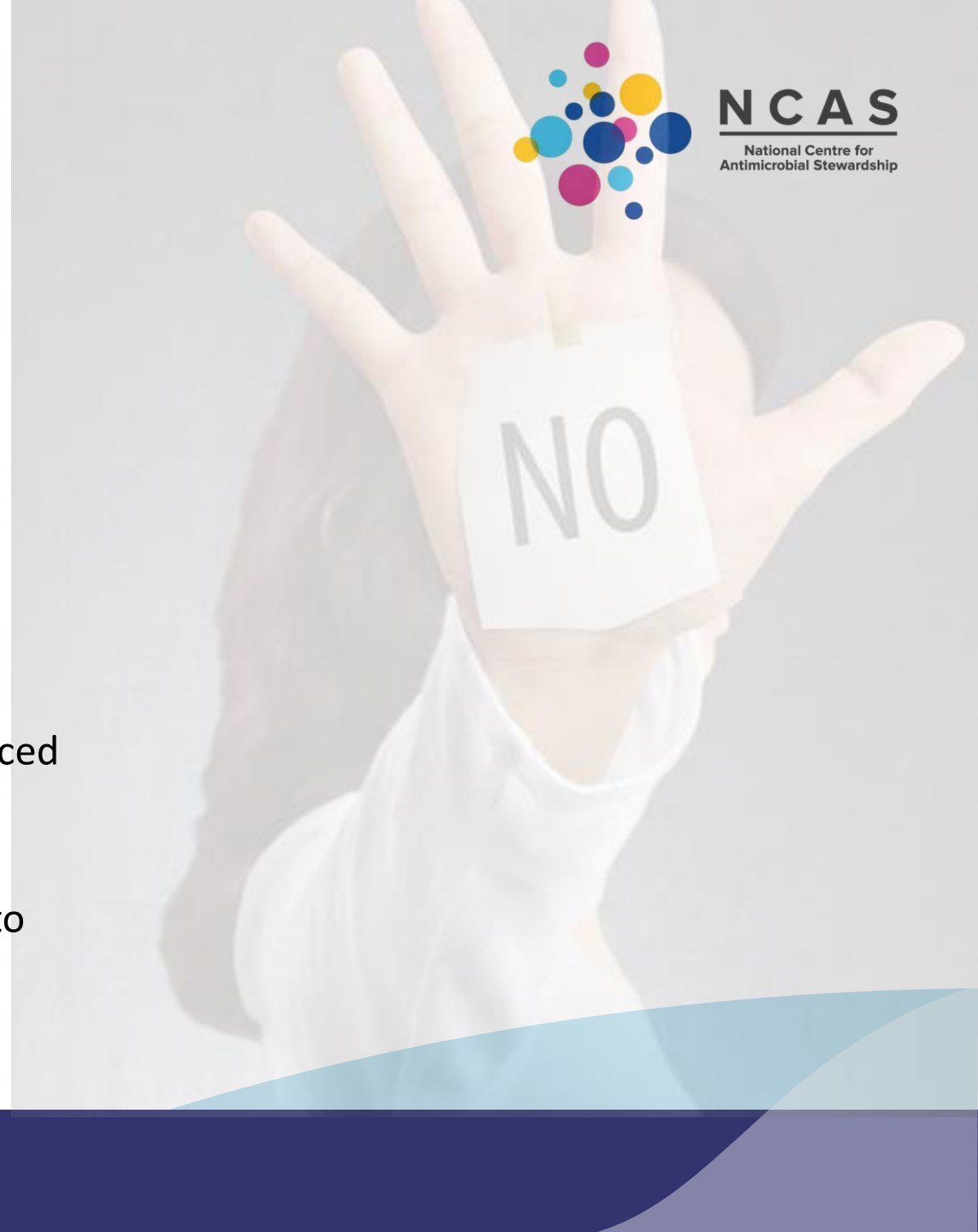
Challenges

3. Resistance to Change

- Accustomed to entering free text
- View structured input as limiting or unnecessary

4. Preference for Uncoded or Free Text Data

- Flexibility in documentation, allowing for more nuanced explanations.
- Results in non-standardised data, making it difficult to analyse and use.



Challenges

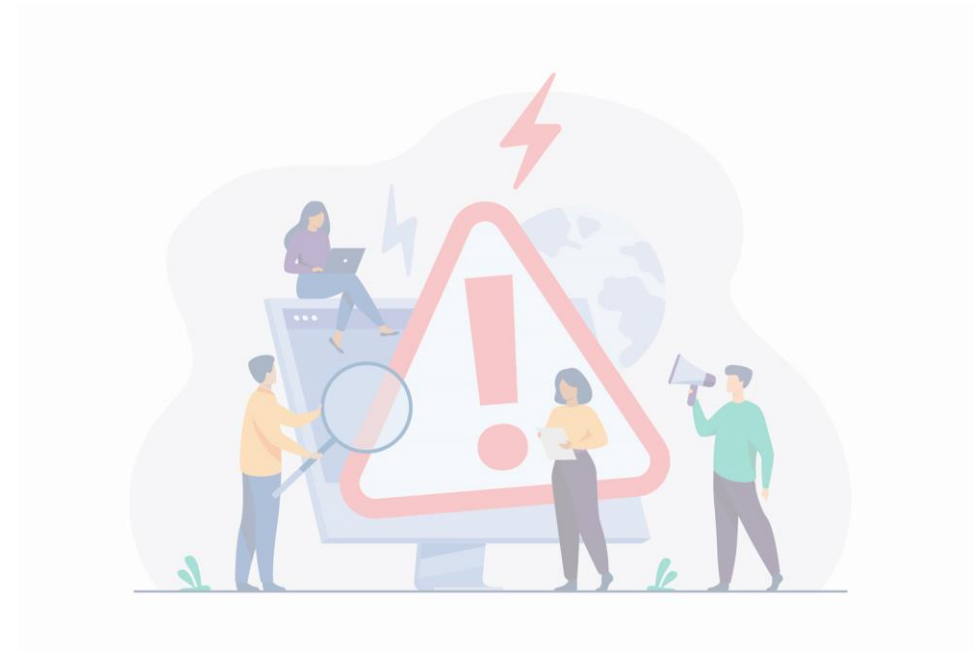
Technology

1. Lack of standardisation

- Lack a built-in, comprehensive, and standardised list of indications, forcing clinicians to rely on free text

2. Fragmented Systems/Interoperability Issues

- Gaps in data flow
- Indication documentation lost or not properly integrated across platforms.



Potential solutions

- Standardised lists
 - E.g. SNOMED-CT
- Imposing mandatory fields for indications
- Decision support tools
 - Ensure that clinicians select the correct indication

SNOMED CT
The global
language of
healthcare

Problems

- Standardised lists
 - E.g. SNOMED-CT **May not be granular enough, not suitable for all use cases**
- Imposing mandatory fields for indications **Enforceable with EMR but can be gamed**
- Decision support tools **Alert fatigue**
 - Ensure that clinicians select the correct indication

Universal Indications List

- Created in recognition of the gap in the ability to compare and unify indication nomenclature across sectors.
- Indications in this list need to be:
 - granular enough to enable assessment against guidelines
 - unique without overlap

Development

- Content curated by a multidisciplinary team of clinicians
- Indications included conditions where antimicrobials can be prescribed for (also includes non-infective conditions)
- Each indication is mapped to:
 - SNOMED CT code
 - Tag-words
 - An over-arching grouping: 'body system'
 - Can be mapped also to hyperlinks to online guidelines

Content management committee

- Multidisciplinary
 - Internal and external stakeholders with diverse expertise
- Ensures appropriate justification for inclusion of indications
- Manage requests for addition to the list and that requests make sense
- Accurate mapping and there is appropriate linking to tag-words



Development - Timeline

- Iterative process – takes *years*
 - Content development
 - Technology
- Version 1 developed in 2017, many iterations since then!



Applications

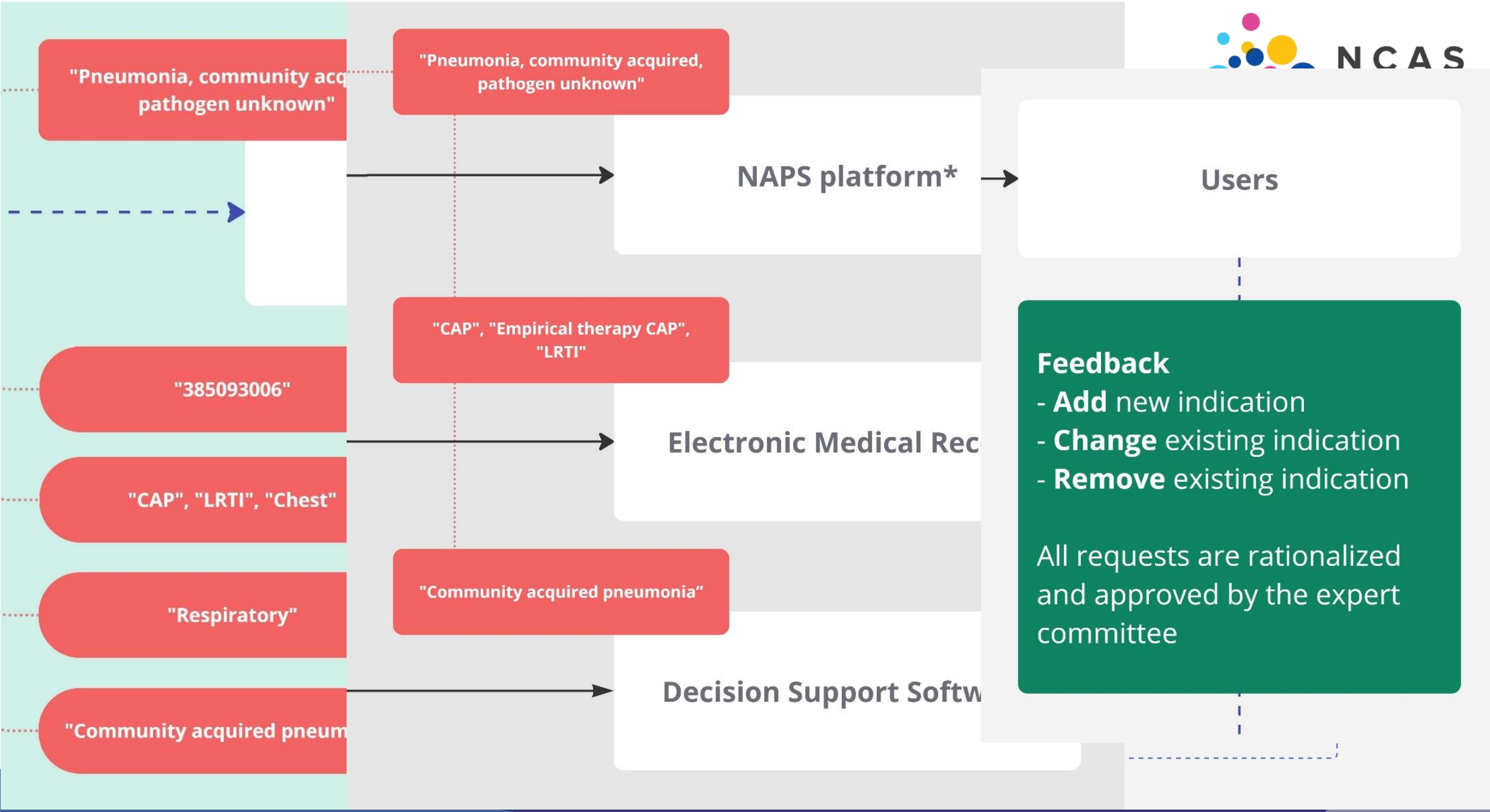
- Hospital National Antimicrobial Prescribing Survey (NAPS)
- Guidance AMS decision support system
- NCAS Research
 - Data Science Initiative, hospital and primary care streams




Benefits

- Granular indication selection
- Reporting
 - specific indications or as an overarching groups





Learnings

- One list does not fit all
- User feedback is 
 - List has been refined and improved over time with user feedback
- Important to be flexible and efficient
- Multidisciplinary collaboration

Future directions

- Overarching master list with a context-specific list for each use case
- More flexibility in selection of fields to be displayed/reported with more end-user control
- Expand list to also include other clinical lists such as antimicrobials and pathogens



Acknowledgements

- NAPS and Guidance AMS users
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