

Antimicrobial Stewardship Programs in a Mexican Private Healthcare System: A self-assessment of core elements

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BACKGROUND

- Antimicrobial resistance is one of the main global public health threats. Antimicrobial stewardship programs (ASP) refer to a set of coordinated actions that improve the quality of care and combat antimicrobial resistance. Currently, information regarding the status of ASP in Mexico is scarce.

OBJECTIVE

- To describe the status of ASP in 12 hospitals from CHRISTUS MUGUERZA Healthcare System.

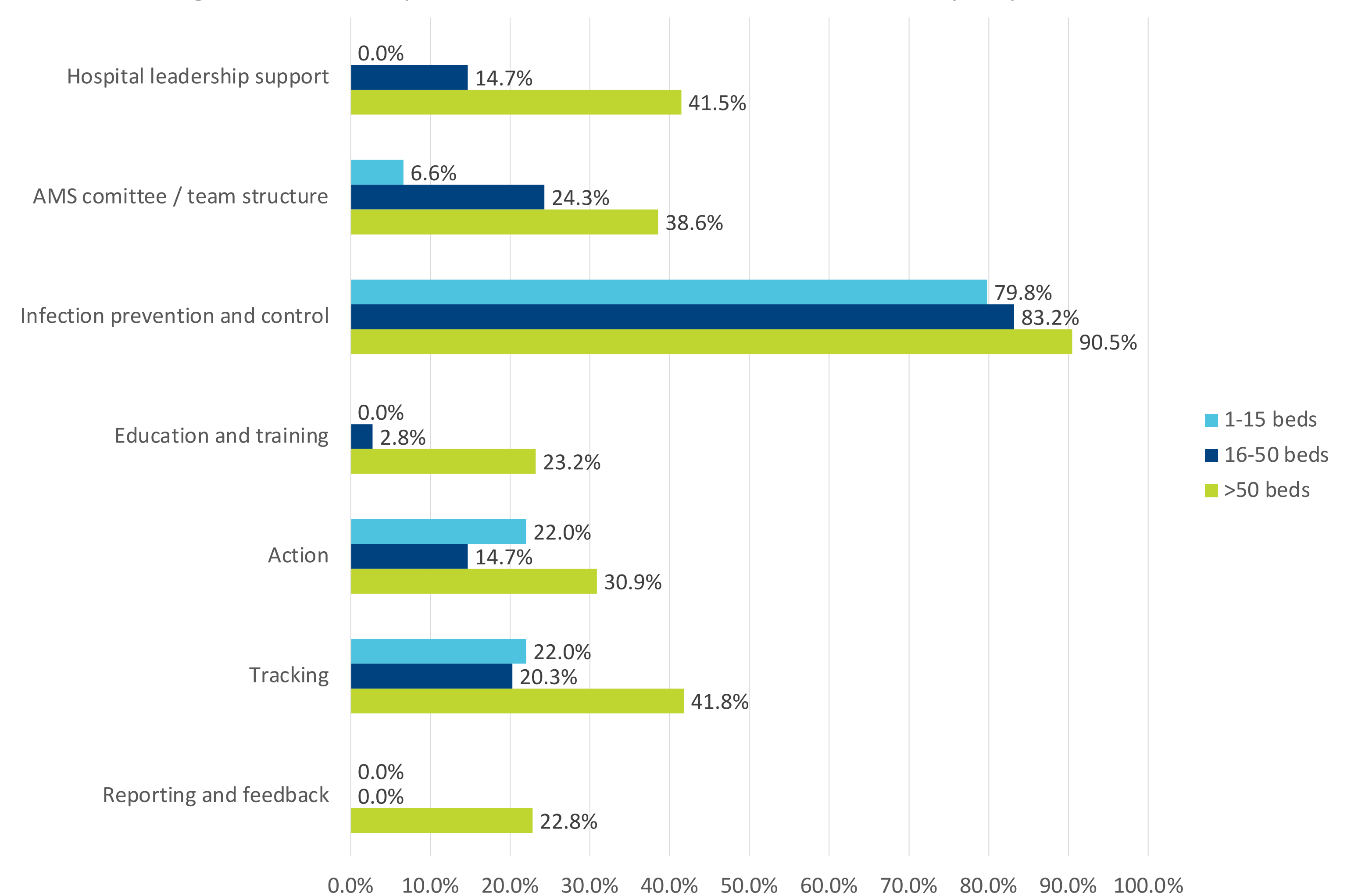
METHODS

- This was a cross-sectional study conducted in 12 private hospitals.
- A previously developed self-assessment tool validated in Colombia was used to calculate each hospital's ASP development score¹.
- The self-assessment tool includes 7 standards with 23 items. Evaluated core elements were: 1) Hospital leadership support, 2) Antimicrobial stewardship (AMS) committee / team structure, 3) Infection prevention and control, 4) Education and training, 5) Action, 6) Tracking, and 7) Reporting and feedback.
- Score categories were defined as; high = 100%, medium = 66%, low = 33%, or none = 0%. The overall ASP development score (0% – 100%) was calculated using the proportional weight of each standard.
- Participating hospitals were divided into 3 groups according to their bed count: 1 – 15 beds (1 hospital), 16 – 50 beds (6 hospitals), and >50 beds (5 hospitals).
- Statistical analysis was conducted in Excel program (Microsoft, Redmont, Washington).

RESULTS

- 12 hospitals completed the self-assessment survey (see, Figure 1).
- The mean overall ASP development score was 35.1%.
- The highest overall development scores were observed for hospitals with >50 beds.
- The core elements with the lowest development scores were Education and training, and Reporting and feedback.
- Unlike hospitals with over 50 beds, those with 50 beds or less had a low development score for Hospital leadership support.
- The core element with the highest development score was Infection Prevention and Control.

Figure 1. ASP development scores for each core element, stratified by hospital bed count



DISCUSSION

- This study evaluated the development of ASP in private hospitals using a self-assessment tool.
- We described a lower score (35.1% vs 65.8%) in comparison of a previous report from Pallares et al.
- Despite having the necessary infrastructure and resources, the results suggest that more staff may need to be involved in the implementation of ASP.
- AMS teams should focus on improving the implementation of core elements with the lowest scores (Reporting and feedback, Education and training).

CONCLUSIONS

- This first assessment will be used as a starting point to determine the current situation. Assessments can be repeated to evaluate each hospital's ASP development over time.
- It also shows the core elements that must be improved so that effective ASP can be implemented. ASP development should be supported by CHRISTUS MUGUERZA Healthcare System's corporate policies.

REFERENCES

- Pallares et al. Antimicrobial stewardship programs in seven Latin American countries: facing the challenges. *BMC Infectious Diseases*. 2023; 23: 463.
- Diario Oficial de la Federación, ACUERDO por el que se declara la obligatoriedad de la Estrategia Nacional de Acción contra la Resistencia a los Antimicrobianos. (2018).
- Organización Mundial de la Salud. (2020). PROGRAMAS DE OPTIMIZACIÓN DE LOS ANTIMICROBIANOS EN INSTITUCIONES SANITARIAS DE LOS PAISES DE INGRESOS BAJOS Y MEDIANOS, MANUAL PRÁCTICO DE LA OMS.
- Pallares, C., Hernández-Gómez, C., Appel, T. et al (2022). Impact of antimicrobial stewardship programs on antibiotic consumption and antimicrobial resistance in four Colombian healthcare institutions. *BMC Infectious Diseases*, 22(1).

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DISCLOSURES

All authors declare that they have no conflicts of interest.

