Visual mapping of team dynamics and communication patterns on surgical ward rounds at a tertiary hospital: What it tells us about Antibiotic stewardship and infection management

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Background: Evidence has shown that differing team dynamics across surgical and medical specialties influence decision making for treating infections. There is a need to develop contextualised interventions to optimise infection management.

Materials/methods: We investigated communication and team dynamics in relation to antibiotic stewardship (AS) and infection prevention and control (IPC) across two surgical teams at a tertiary hospital. Data were collected between May to November 2019, by direct observations of ward rounds, and face-to-face interviews with ward round participants. Field notes from observations and the transcripts of interviews were analysed using a grounded theory approach. Additionally, visual mapping methods (sociograms) were applied to describe the content and flow of communication and the social links between individual participants.

Results: 60 hours of observations, including 1024 individual patient discussions were gathered. Seven patients and 60 healthcare professionals were interviewed. Discussions about antibiotic prescriptions and IPC are inconsistent across specialties. Communication flow is mainly between the consultant and registrars, and seldom includes input from the nurse, or wider team members. Although consultants facilitate key decision-making, individual leadership styles determine how decisions are assigned to team members. The limited communication with nurses who are responsible for activating or maintaining infection management decisions is a barrier to effective and timely care. Patients often remain passive recipients of care with little details about decisions on AS and IPC communicated with them.

Conclusion: AS and IPC discussions on ward rounds occur predominantly between consultants and registrars. Nurses activate decisions made on ward rounds and the lack of directed communication may result in delayed or missed AS and/or IPC interventions. The sociograms identified positive examples of practice and engagement with the wider team which can be developed into a model of effective communication on ward rounds in relation to AS and IPC. Sociograms enabled data triangulation and validation, and were a powerful visual illustration giving participants a global view of interactions and team dynamics on ward rounds.