

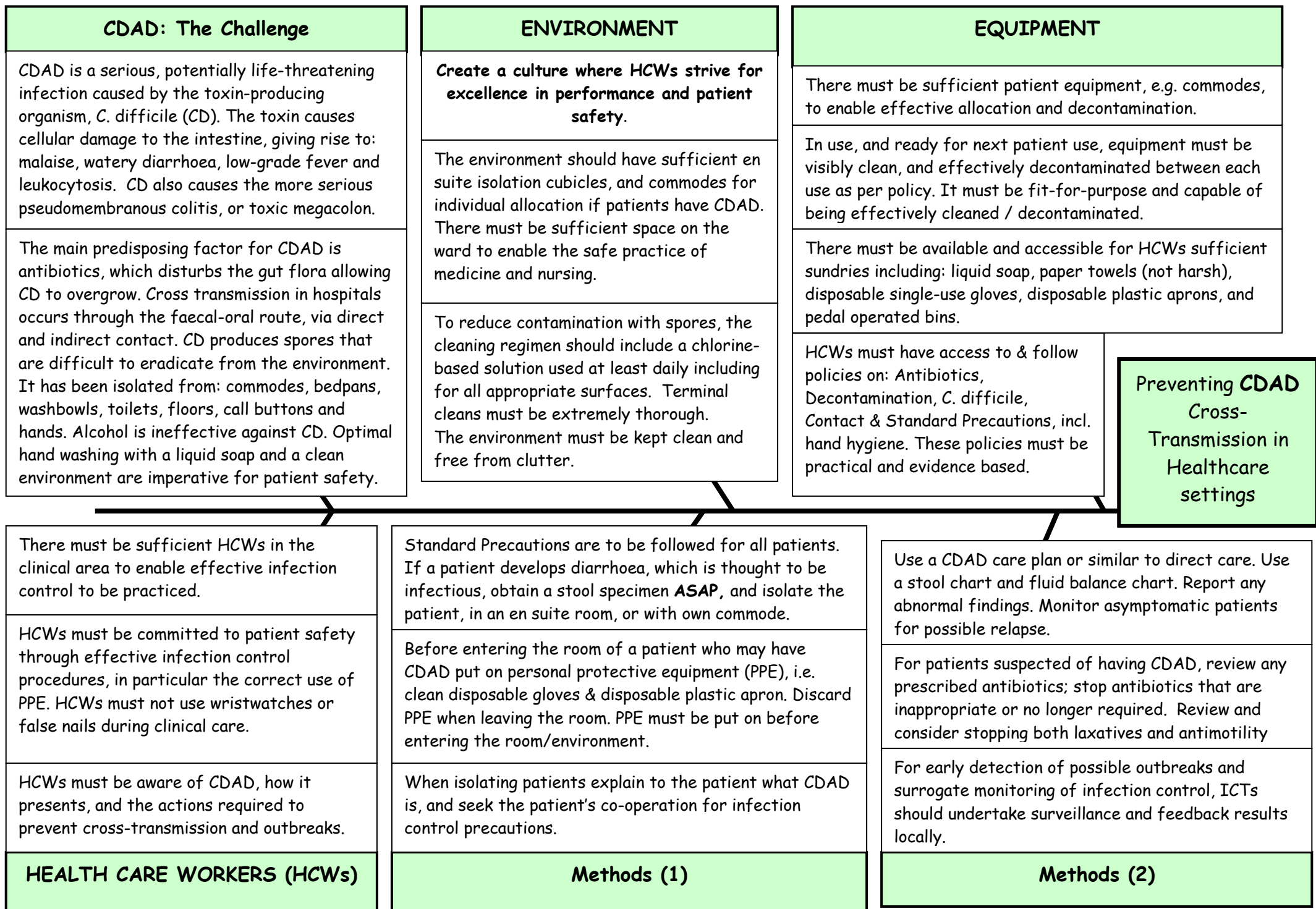
CDAD Bundle

Cause and Effect Chart – to minimise *Clostridium difficile* cross-transmission

A literature search was performed and the identified papers underwent a rapid review. From this review, key points of information for optimal care for minimising *Clostridium difficile* associated disease (CDAD) have been summarised below. A formal scientific critique was not performed on the identified papers and therefore there may be limitations to this process. Key points from the papers:

Clostridium difficile is an anaerobic, spore-forming, Gram-positive bacterium [1]. The organism produces powerful toxins, which cause diarrhoea, inflammation and injury to the lining of the gut. The term CDAD covers a broad spectrum of disease ranging from mild diarrhoea to severe disease, including colitis, pseudomembranous colitis (PMC) and toxic megacolon. Severe cases can be fatal [1-4]. *C. difficile* is transmitted via the faecal-oral route via direct and indirect contact [5].

- Separation of those with CDAD from others is crucial in minimising cross transmission and patients should be isolated in single rooms when possible or cohorted if no facilities are available. Patients should be isolated until symptom-free for 48 hours [6, 7].
- Treatment with antibiotics and invasive surgical procedures, which disturb the normal intestinal flora, can lead to overgrowth of *C. difficile*, resulting in an elevated risk of CDAD. Early detection of the disease followed by appropriate antibiotic treatment is essential to prevent onward transmission of *C. difficile*. Recurrent disease occurs in up to 50% of treated patients [8].
- To reduce transmission, HCWs should always wear PPE (disposable aprons and gloves) for all contact with patients with CDAD and their immediate environment, and PPE must be discarded after each patient care activity [6, 9].
- The spores survive for long periods of time within the environment and germinate into viable bacteria when ingested. The spores are resistant to most disinfectants and only chlorine-based disinfectants are effective against spores. The immediate patient environment should be cleaned followed by disinfection with chlorine-based solutions (1000 ppm available chlorine) at least every day and always when visibly soiled [6, 9-11].
- Hand washing with soap and water is crucial when providing clinical care for patients with CDAD to physically remove spores. Alcohol hand gel is ineffective against spores [9, 12].



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