

Systematic review of gastrostomy complications and outcomes in pediatric cancer and bone marrow transplant

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Abstract

Nutrition support is essential in children with cancer, including those undergoing bone marrow transplant (BMT), to reduce the risk of malnutrition and associated deleterious outcomes. Enteral nutrition is more commonly provided via nasogastric than gastrostomy tubes due to safety concerns with the latter in immunocompromised children. This systematic review investigated the incidence and type of complications and outcomes in pediatric cancer patients fed by gastrostomy. Across studies, 54.6% of children developed [?]1 complication, of which 76.6% were classified as minor, 23.4% major. The most frequent complications included inflammation (52% of episodes), infection (42.1%), leakage (22.3%) and granuloma (21%). Evidence regarding infection rates in cancer/BMT patients compared with other disease states was inconclusive. Gastrostomy feeding was associated with improvement or stabilization of nutritional status in 77-92.7% of children. Gastrostomy feeding in this population is safe and effective in stabilizing or improving nutritional status throughout treatment. Complications are frequent but mostly minor.

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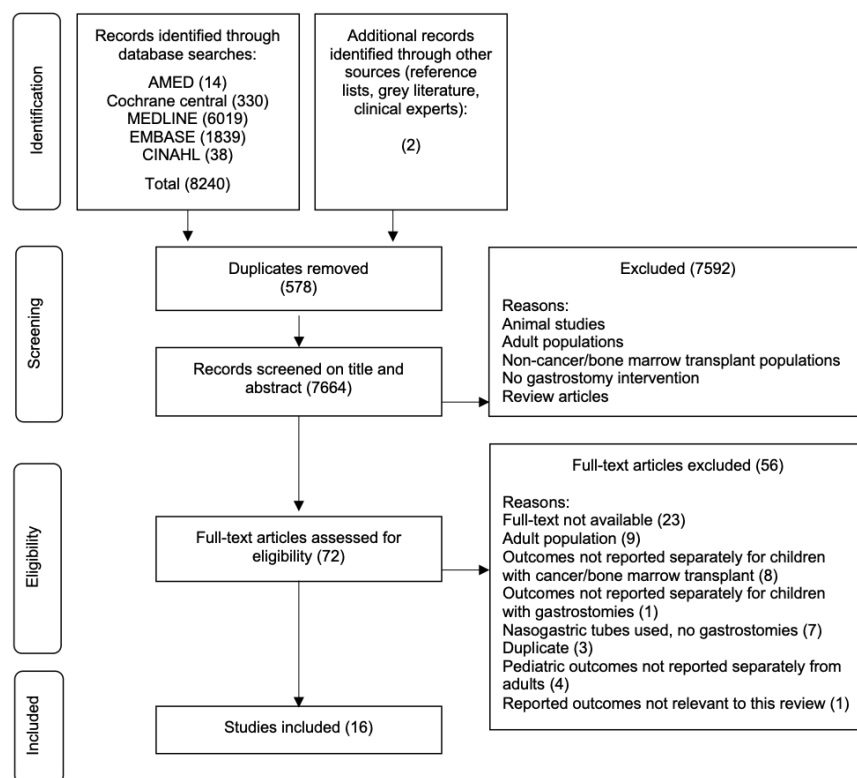


FIGURE 1 PRISMA flow diagram showing studies included in the systematic review