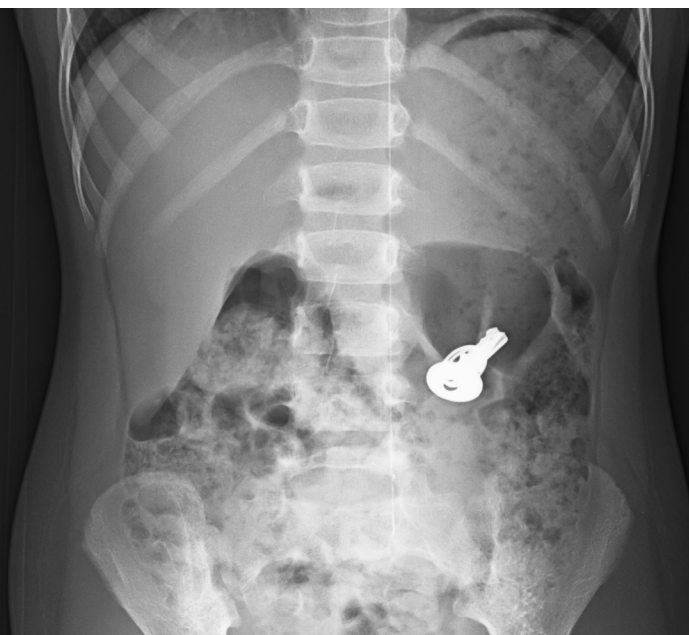


Pica Behavior in Acute Care Hospitals

Strategies for Screening and Mitigating Risk of Harm

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The Pennsylvania Patient Safety Reporting System (PA-PSRS) has received hundreds of event reports describing patients who ingested inedible objects while receiving treatment in acute care hospitals. Some of these event reports specifically reference patients with a diagnosis of pica who experienced serious harm and required surgical intervention.

What Is Pica?

Pica is a dangerous disorder involving the persistent ingestion of nonfood, foreign bodies (e.g., plastic, coins, hair, fibers, feces, garbage, medical equipment).¹ The American Psychiatric Association diagnostic criteria specifies that pica behavior persists over one month and is developmentally inappropriate (i.e., patient is age 2 years or older) and is not part of a culturally/socially accepted practice.¹

Pica is underdiagnosed and patient risk factors are not well screened or documented in medical settings.^{2,3,4,5} Pica behavior most frequently occurs in patients with neurodevelopmental disorders.^{2,3} Pica is reported in approximately 14%–28% of patients with autism and/or intellectual disabilities and up to 75% of children with sickle cell disease.^{2,3} Additionally, each of the following are independent risk factors for pica behavior: Children younger than 6 years old, persons with increased severity of intellectual disability, persons with severe social and leisure deficits, and/or those who are institutionalized.^{2,3,6} Pica is also associated with pregnancy; chronic kidney disease; and psychiatric disorders, such as schizophrenia, trichotillomania (hair pulling), trichophagia (ingesting hair), excoriation (skin-picking), and dermatophagia (chewing, ingesting skin/nails).^{1,4}

Impact of In-Hospital Pica Behavior on Patients and Care

We reviewed a sample of PA-PSRS event reports about patients with a diagnosis of pica who ingested inedible objects while in an acute care hospital. Based on the event reports, we found that ingestion of inedible objects occurred across a range of areas within the hospitals (e.g., emergency department, cardiac unit, intensive care unit, medical-surgical, pediatric unit, surgical areas). The reports described the following items being ingested by patients: needles, gloves, batteries, intravenous (IV) catheter and lines, peripherally inserted central catheter (PICC) lines, jejunostomy tube (J-tube), specimen lid, plastic spoon, diaper, gauze, device lead, glass, paper clip, pen/pencil, straw, toothbrush, and pieces from eyeglasses. Following the ingestion, many patients

required invasive and exploratory procedures (e.g., endoscopy, colonoscopy, and laparotomy). Based on PA-PSRS reports and/or prior literature,^{7,8} pica behavior can lead to disruptions in care and the following health complications: choking, aspiration, pharyngoesophageal ulceration, stricture, gastrointestinal obstruction or perforation, acute weight loss, bezoar formation, parasitic infection, poisoning, or death (e.g., from ingesting a latex glove or sharp-pointed object).

Potential Strategies to Mitigate Risks Associated With Pica Behavior While a Patient Is in Hospital

Screening

- Review patient's medical records for a history of pica and risks of pica behavior: (1) diagnosed pica (*International Classification of Diseases*, Tenth Revision, Clinical Modification [ICD-10-CM] codes F98.3 in children, and F50.89 and/or F50.83 in adults) or undiagnosed pica (i.e., ingestion/swallowing of foreign bodies) and (2) associated diagnoses (e.g., autism, intellectual disabilities, sickle cell disease, schizophrenia, trichotillomania, trichophagia, excoriation, dermatophagia, chronic kidney disease, pregnancy).
- Interview the patient and/or caregiver to screen for risk of pica behavior. Consider asking the following screening questions: (1) In the past six months, did the patient attempt to chew, eat, or drink something that is not food and should not be consumed?; (2) Outside of the hospital, what are the nonfoods that should not be consumed, but the patient attempts to eat, chew, or drink?; and (3) In a hospital environment, what nonfood item(s) do you think are at risk of being chewed, eaten, or drunk?
- Use clinical judgement, based on both record review and interview with screening questions, to guide a decision whether to implement safety strategies.

Safety Strategies

- Assess the area/room during each shift, and then secure and move items of concern.^{9,10} Regularly evaluate equipment for damage or missing parts, which may have been caused by the patient.
- If medical equipment at risk of being ingested is unable to be removed from the patient's reach, consider using a caregiver or 1:1 sitter who can sit in close proximity to observe the patient and physically block pica behavior, if necessary. Sitting in close proximity and blocking may not be feasible or effective as a sole strategy, so it should be implemented in conjunction with other strategies.⁵
- Attain a behavior plan from the community provider or previous admission; if necessary, create a more robust plan. A behavior plan is often developed in consultation with a psychiatrist, psychologist, behavior specialist, and/or applied behavior analyst.^{5,10}
- Create an enriched environment with pica-safe physical and mental activities to distract the patient from their desire to ingest inedible objects.⁵ For younger patients and if available, consider an order for a child life specialist who could help with this strategy. Use alternative sources of oral stimulation dependent on the patient's diagnosis and history, such as snacks or chewy teethers. Staff should seek a consult from an aforementioned specialty or a speech language pathologist or occupational therapist.
- Use of more restrictive interventions (e.g., mechanical restraint) must be aligned with the patient's plan of care, governmental regulations, and hospital policy, and authorized and monitored by the appropriate level of clinical staff.
- Closely monitor patients with risk of pica behavior throughout their time in a hospital for changes in health condition, which may reflect ingestion of inedible objects prior to admission or a covert occurrence *during* admission.^{7,8}

Documentation and Care Coordination

- Document patient and/or caregiver responses to the screening questions about previous pica behaviors and nonfood items at highest risk of being chewed, eaten, or drunk.
- Document safety strategies implemented and the corresponding results during each shift and for all areas inhabited by the patient.
- For patients with repeat admissions related to pica behavior, create a referral to mental health providers specializing in pica, challenging behavior, and/or eating disorders.
- To help create clinical staff awareness during future patient visits, the clinical coder should use the ICD-10-CM codes for pica, which are F98.3 in children (24 months and older) and F50.83 in patients 15 years and older (specify "pica").

This list of potential strategies was derived from both the cited literature and the first author's clinical experience. We encourage readers to critically review these potential strategies prior to implementation.

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