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Major article

Reducing infection transmission in the playroom: Balancing patient safety and family-centered care

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Background: Family-centered care requires that institutions develop strategies to allow sibling visitors to hospitalized children while reducing risks of infectious disease transmission. Most guidelines recommend that siblings not be permitted to visit playrooms. This approach was not seen as consistent with family-centered care in our setting; therefore, in a pilot project we developed an approach for screening siblings with cooperation of families, child life specialists, the care team, and the infection prevention and control service.

Methods: A literature review using CINAHL and PubMed databases (Medical Subject Heading terms: *visitors to patients*, *child*, *infection*, *nosocomial*, and *siblings*) from 2004-2014 did not uncover formal established methods for reducing playroom infectious disease exposures. Benchmarking with other Canadian centers revealed a diversity of approaches. Child life, the ward staff, and infection prevention and control at this center collaborated to develop a sibling screening strategy.

Results: The collaborative approach led to a process based on a screening form that is introduced to the family during admission. The process requires the cooperation of the admitting nurse, parents, and child life staff. In the first 2 years of the project, approximately 10% of screened siblings had a potentially communicable illness.

Conclusion: A collaborative multidisciplinary approach based on family center care principles led to a process whereby siblings of hospitalized children can be allowed to visit playrooms, while reducing risk of infectious disease transmission.

Sibling visits to hospitalized children are implicit in family-centered care, which maintains that although "health professionals are the experts on health and disease, family members are experts on the patient," and family is a prime source of support to a patient.[1,2] It is accepted that siblings should be welcomed to the hospital, and various position statements since the 1980s stress the importance of balancing sibling visitation, particularly in neonatal units and in chronically ill children, with infection control precautions.[2] More recent work has found that although hospitals can be dehumanizing for patients and their families, if "family needs are identified and met…family anxiety and stress may decrease."[3] Further, it is important for patients to have agency regarding visitation; when possible, they should "be able to decide who can visit them and when."[4]

Playrooms in pediatric hospitals are an essential part of creating a normal childhood environment for ill children. Play is recognized as being important for a child's development. In health care settings, play helps children have a sense of normalcy, provide an opportunity for expression, provide learning about the environment, and in maintaining and potentially gaining new

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developmental skills.[5] The emphasis on family-centered care in pediatric settings means that siblings are present and can be expected to be eager to share access to playrooms intended for patients. This too can support patient care because play itself can be critical for sick children because it can help "ease a child's fear and anxiety."[6] The American Academy of Pediatrics and the Centers for Disease Control and Prevention, while encouraging sibling visitors, recommend that child visitors should only visit their own siblings.[2,7]

At our tertiary care pediatric and maternal health center, a recent series of renovations resulted in new challenges and opportunities: the new playrooms are larger, are located on the patient wards, and feature full glass windows that face the corridor, resulting in a more inviting space. Although the new facilities have adequate physical space for siblings to participate in play, we recognized that exposure of inpatients to child visitors could be associated with a greater risk of exposure to infectious diseases. We needed to minimize that risk while recognizing the importance of sibling interactions in our model of family-centered care. Although admitting nurses educated families about the importance of preventing their children from being exposed to infectious diseases by visitors, we did not have a formal process for screening siblings or child visitors prior to playroom entry. We report here the results of a literature review and benchmarking to evaluate screening methods and the development of a process to screen siblings for infection prior to playroom use.

MATERIALS AND METHODS

A literature search was conducted using the CINAHL and PubMed databases to identify methods for screening siblings who visit hospital playrooms. A search using the Medical Subject Heading (MeSH) terms *visitors to patients* and *infection, nosocomial* and *siblings* restricted to the English language only yielded 6 articles; therefore, the search strategy was expanded by only using the MeSH terms *siblings* and *visitors to patients*. To be included, articles were required to be about child sibling visits to a health care setting and published between 2000 and 2014. Reference lists of retrieved articles were reviewed. Three authors (AI, BM, JL) independently reviewed the abstracts and identified articles for review, and 2 authors (author identifiers removed) reviewed the full articles.

To identify best practices at other Canadian pediatric centers, the 24 members of the Pediatric and Neonatal Interest Group of Infection Prevention and Control Canada were contacted by e-mail. These members represent all university-affiliated pediatric health centers in Canada. Members provided information about and copies of policies and processes to prevent transmission of illnesses by siblings visiting patient playrooms.

For context, the IWK Health Centre is a university-affiliated pediatric and maternity care center serving the Maritime Provinces of Canada (population of approximately 2 million). There were 224 beds and 3,457 pediatric admissions for the 2014 fiscal year. There are 2 activity areas and a teen lounge. The activity area has child life workers who provide play programming at designated 2-hour blocks in the morning and afternoon 3-5 d/wk. The teen lounge provides programming by a child life specialist. There is also a summer play garden program. Infectious patients are not allowed to visit the playrooms. Their programming is provided in their rooms by child life.

Based on the evidence retrieved from the literature search and survey of Canadian colleagues, infection prevention and control services, child life services, and care teams on the inpatient unit housing one of the new playrooms collaborated to develop a screening strategy. A situation-background-assessment-recommendation document describing the planning process was developed and agreed on. This document was presented to internal committees, and after approval the new screening process was launched. Because this project was implemented as part of an infection prevention and control quality improvement initiative, institutional review board submission was not required at our institution.

RESULTS

Literature review

Of the 98 articles found in the literature search, 19 were appropriate for full review. Of these 19 articles, 9 described sibling visits to pediatric patients, but none included research specific to playrooms.[3,8–15] Four narrative reviews described the influence of the patient- and family-centered care philosophy on the change from restricted visiting policies to flexible visiting determined by the family or patient.[8,9,12,15] Makic et al notes that the U.S. Patient Rights Standard of the Joint Commission requires that a family member, friend, or other individual be allowed to accompany the patient during a hospital stay.[8] Focusing on the pediatric intensive care unit, Meert et al notes that the American College of Critical Care Medicine recommends that siblings should be able to visit the pediatric intensive care unit with parental approval after previsit education and that siblings of immunocompromised patients should be allowed to visit after physician approval.[12] Adams et al refers to the patient-center care improvement guide in which open visitation is patient directed and infection control measures are discussed beginning with admission.[9] Family-centered visitation in the context of a neonatal intensive care unit is reviewed by Griffin.[15] Gupta et al report in a 2010 survey of infection control practices that 89% of U.S. newborn units restricted access to children.[13] Three articles describe single institution experience with open visitation.[3,10,14] Levick et al report that nonill siblings may visit outside of the respiratory syncytial virus season. Infection control concerns are addressed by parent education and completion of a short health screen at the time of the sibling visit.[10] Falk et al describe their sibling screening process in a cancer treatment hospital, which includes a review of immunization status, general health, and communicable disease exposure. A screening document is completed with the assistance of welcome center and security staff members, after which the child receives a visitor passport.[14] Roland et al describe a pilot project to implement open visitation in an intensive care unit, but they do not describe siblings specifically or screening methods.[3] Finally, an article by Merk and Merk describes one family's experience in a pediatric intensive care unit, including one aspect of the inability of the child's siblings to visit their brother.[11]

Benchmarking survey

Six respondents of the 24 Pediatric and Neonatal Interest Group of Infection Prevention and Control Canada members from 5 pediatric centers completed the survey on practices related to sibling visits. Three of the 5 centers allowed siblings to visit the playroom; in 2 centers, screening for communicable disease was performed informally by child life staff, and the third screening of siblings-visitors was performed passively through signage. Two other centers have common recreation areas where child life staff identifies potential communicable diseases in child visitors using a screening tool.

Pilot project to screen siblings for playroom visits

Infection prevention and control initiated a collaborative process with the goal of maximizing opportunities for visiting while minimizing the risks of infection transmission by young visitors. After consultation with child life and ward staff on the