

RESEARCH ARTICLE

Visitor Guidelines in US Children's Hospitals During COVID-19

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ABSTRACT

OBJECTIVES: To examine visitor guidelines among children's hospitals in the United States in response to the coronavirus 2019 (COVID-19) pandemic.

METHODS: A retrospective assessment of visitor guidelines in 239 children's hospitals in the United States.

RESULTS: In this study, we present an analysis of 239 children's hospital visitor guidelines posted to hospitals' Web sites during 1 week in June 2020. Of the 239 hospitals, only 28 did not have posted guidelines for review. The guidelines were analyzed and grouped by how the guidelines were updated in response to COVID-19. Parental visitation was restricted to 1 parent in 116 of the posted guidelines (49%). There were no obvious similarities among guidelines associated with their geographical (eg, state or local) location. As of February 2021, 33 of 55 (60%) randomly selected hospitals had not changed their visitor policy since our initial review.

CONCLUSIONS: The COVID-19 pandemic triggered changes in publicly reported visitor guidelines across the majority of children's hospitals. With our findings, we suggest wide variation in policies and practices in how guidelines were updated. More work is needed to understand how to optimize public safety and preserve family-centered care and parental authority in times of crisis.



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As a novel coronavirus spread in the spring of 2020, restaurants, schools, stores, and hospitals across the United States began operating under new public health ordinances intended to reduce transmission of severe acute respiratory syndrome coronavirus 2 (the virus that causes coronavirus disease 2019 [COVID-19]). Hospitals implemented stringent restrictions, including limitations to visitors for hospital patients, even in pediatric settings. The rationale for these restrictions and policies was likely multifaceted and aimed at limiting transmission of the virus (eg, public health impacts) and/or preserving personal protective equipment.¹² Yet limitations to hospital visitors, especially for children, raise questions regarding these guidelines' effects on patients and families.

Hospital visitor restrictions are not a new phenomenon. Seasonal restrictions during winter months during the peak of respiratory viral infections were common pre-pandemic. The rationale for these guidelines are based on theoretical risks of limiting transmission of pathogens in the health care setting.³ There is evidence to suggest seasonal visitor restrictions reduce the spread of in-hospital transmission of respiratory illness.^{4,5} However, these restrictions were often time limited or restricted to certain areas of the hospital (eg, intensive care) or for those with active illness. Many of these policies interfered with components of family-centered care on the basis of presumptive risks. Although these may be practical considerations, they are substantially different from COVID-19 restrictions. For instance, seasonal restrictions have not historically limited visitation by parents or primary caregivers or limited time at the bedside, for example, barring overnight visitation or restricting visiting hours to small blocks of time.^{6,7}

Treating parents and families as essential members of the care team by no longer referring to them as visitors predated the COVID-19 pandemic and was spearheaded by the Institute for Patient and Family-Centered Care.⁸ As such, family-centered care is a key component of contemporary inpatient pediatric care,⁹ and parental presence for children has been

underscored by many researchers, clinicians, and administrators. When a child is hospitalized, parents serve as surrogate decision-makers for patients who, as minors, lack the legal authority to make their own medical decisions and are often not developmentally ready to substantively engage in these decisions as assenting minors. Parental presence is crucial to facilitating the interactions necessary for a child's development and to supporting parents' mental health during their child's hospitalization.^{10,11} Yet we know little about visitor guidelines in children's hospitals during a pandemic. Given that the COVID-19 pandemic and its associated visitor guidelines have lasted much longer than the respiratory season, understanding these policies, how they may evolve over the course of the pandemic, and how they may impact family-centered care is necessary for streamlining visitor guidelines in future pandemics. Thus, the purpose of our study was to describe the type and prevalence of visitor restriction guidelines among children's hospitals in the United States and document how visitor guidelines were updated in response to the COVID-19 pandemic.

METHODS

Design and Setting

We conducted a cross-sectional study of visitor guidelines from children's hospitals across the United States using the directory of the Children's Hospital Association (CHA) and an Internet search. The CHA directory includes hospitals from the United States ($n = 236$) and other countries ($n = 7$). The international hospitals ($n = 7$) were excluded from this analysis. The directory, to our knowledge, is the most comprehensive directory of children's hospitals available and includes a hospital from every state except Kansas and Wyoming. We identified children's hospital(s) in Kansas and Wyoming via an Internet search to include data from every US state. Our final sample consisted of 239 hospitals.

Data Collection

Data collected for this study included hospital information provided in the CHA

directory, such as hospital size (eg, small: <150 beds), type (eg, freestanding or integrated), magnet status (eg, yes or no), location (eg, address), and Web site. Using the provided Web site addresses, we viewed every hospital Web site to locate visitor guidelines. Guidelines that were available online were downloaded between June 1 and June 5, 2020. If visitor guidelines were not posted on the hospital Web site, the data were categorized as no data available. For all the available guidelines, we reviewed the posted visitor guidelines for the following information: date of posting, specific information about visitation (eg, who is allowed), if the information was found on a designated page for COVID-19 information, and any temporal changes or restrictions (eg, limited hours, no overnight stays, timing of visitors). Our data extraction guide is included (Supplemental Table 4).

Analysis

We systematically analyzed and categorized visitor guidelines from 239 US children's hospitals. Two research assistants collected, reviewed, and categorized visitor guidelines. In our analysis, we focused on identifying common elements, such as the number and type of visitors allowed in each guideline. By using content analysis methods and consensus, every hospital guideline was summarized into a single statement regarding who was allowed to visit and when; we then used these summaries to create categories by grouping those guidelines with similar language and common elements (eg, who can visit, timing of visitation, etc). The first and second authors reviewed all categorizations to confirm accuracy. We summarized hospitals that did not post visitor guidelines and those that prohibited all visitors during the COVID-19 pandemic. Hospital demographics were summarized by using descriptive statistics. We used χ^2 analyses to assess for differences among hospital characteristics (eg, type, size, and magnet) and visitor restriction categories. To describe whether restrictions changed over time, we conducted an additional review of our sample between February 10 and February 15, 2021. Using the same analytic approach described above, we randomly sampled

hospitals from each state ($n = 55$, 23%) to determine if the same restrictions were still in place or if they had changed and needed to be recategorized. Given the public nature of the data, institutional review board approval was not required for this study.

RESULTS

Hospital characteristics are summarized in Table 1. Of the 239 hospital guidelines posted online, all but 28 directly stated that their guidelines had changed in response to COVID-19. Of the 239 hospital Web sites we searched, 211 hospitals (88.2%) posted visitor policies; 28 hospitals (11.7%) did not have posted visitor guidelines. Of note, 15 of the 28 hospitals indicated a no visitor policy

but stated exceptions for pediatrics; however, these guidelines did not reference what the exceptions were for pediatric patients. Therefore, 15 hospital guidelines were categorized as no data available because we could not accurately classify the pediatric-related restrictions. Seven guidelines in the sample (2.9%) excluded all visitors, including parents.

For hospitals with visitor information available ($n = 211$, 88%), every guideline specifically referenced COVID-19 as the reason for the updated visitor guidelines. There were 18 hospitals that did not have COVID-19–related updates, but these

hospitals also did not post any visitor guidelines. There were 77 hospitals with a date corresponding with the updated visitor guidelines in response to COVID-19: 22 guidelines were changed in March, 12 in April, 26 in May, and 17 in the first week of June.

Our analysis generated 5 categories related to how visitor guidelines ($n = 211$) were changed in response to COVID-19 on a continuum from least to most restrictive:

1. Two adult visitors permitted ($n = 12$, 5%). This guideline did not specify what relationship the visitor needed to have in relation to the patient; both visitors were allowed to visit together.
2. Two parents or caregivers permitted to visit the patient ($n = 63$, 36%). Under this guideline, 2 parents or caregivers could visit together; additional visitors were not permitted.
3. One parent or caregiver permitted to visit the patient ($n = 116$, 49%). Many hospitals instituting this option allowed for 2 parents or caregivers to visit the child, but the individuals had to visit the patient individually, not together. The rationale for this 1-at-a-time policy was not provided. A few hospitals ($n = 12$) with a 1-at-a-time visitor policy did not indicate what the relationship of the visitor needed to be.
4. One designated parent or caregiver permitted during the child's hospital stay ($n = 13$, 5%). This guideline indicated that the person accompanying the infant or child in the hospital had to be a parent and had to be the same person for the duration of hospitalization.
5. No visitation permitted ($n = 7$, 3%). This guideline was the most restrictive and specified that no visitors were allowed, including parents. Exceptions to this policy were not identifiable from the posted guidelines. Specific language from these guidelines stated the following: No visitor policy, including parents and guardians (New York hospital); restricting visitors from all our hospital and clinic facilities (California hospital); visitor access is restricted (Tennessee hospital).

TABLE 1 Hospital Characteristics

Hospital Characteristics ($n = 239$)	n (%)
Hospital type	
Freestanding	42 (17.5)
Integrated	197 (82.4)
Hospital size	
Small, <150 beds	121 (50.6)
Large, >150 beds	82 (34.3)
Size not specified	36 (15.1)
Magnet status	
Magnet	95 (40)
Nonmagnet	144 (60)
Category of restriction	
Category 1, 2 visitors	12 (5.02)
Category 2, 2 parents and/or caregivers	63 (26.4)
Category 3, 1 parent and/or caregiver	116 (48.5)
Category 4, 1 designated parent	13 (5.4)
Category 5, no visitors	7 (2.9)
Data not available or guidelines not posted on Web site	28 (11.7)
Temporal restrictions	
No overnight stays	2 (0.8)
1 parent per day	13 (5.4)
Limited visiting hours	4 (1.6)
Minors and siblings	
Minors not allowed	62 (26)
Minors of specified age could visit	23 (9.6)
No language about minors or siblings	154 (64)
Updated categorization of visitor guidelines ($n = 55$)	
Same category	33 (60)
Less restrictive	20 (36.4)
More restrictive	2 (3.6)

Several temporal or additional restrictions were noted among the visitor guidelines. The temporal elements noted in the guidelines indicated when visitors were or were not permitted on premises. For instance, several hospitals stated that only 1 parent was allowed per day or that parents could switch every other day or every week. Some hospitals limited visiting hours to a certain time frame or for 1- to 2-hour blocks or did not allow parents to stay at the bedside overnight. Only 9% of hospitals allowed minors above a specified age to visit a patient, whereas 26% of guidelines restricted all minors and siblings from visiting. However, 64% of the guidelines did not clarify whether minors were permitted. Lastly, there were 7 hospitals that specified different visitation guidelines for neonatal patients and pediatric patients: 5 hospitals allowed only 1 parent per pediatric patient but allowed 2 parents for neonatal patients versus 2 hospitals that allowed 2 parents per pediatric patient but only 1 parent for neonatal patients.

The χ^2 analyses of hospitals' characteristics (eg, magnet status, hospital type, and size) and visitor restrictions categories (eg, more or less strict) identified no statistical differences (Table 2). A slightly larger proportion of small hospitals ($n = 71$) instituted restrictive visitor guidelines (categories 3, 4, and 5) compared with large hospitals ($n = 44$) (39.4% vs 24.4%); the same pattern held between integrated hospitals ($n = 112$) and freestanding hospitals ($n = 24$) (53% vs 11.3%) and for nonmagnet status ($n = 81$) versus magnet ($n = 55$) (38.3% vs 26%). We observed geographical variability in visitor restriction categories, even among those hospitals in the same geographical location (see map, Fig 1).

Of the 55 hospitals reviewed to determine if hospitals policies changed over time, 33 had the same visitor restrictions in place, 20 hospitals had changed their guidelines, which met criteria for a less restrictive category (eg, category 3–2), and 2 hospitals had a more restrictive visitor guideline in place (eg, category 2–3, which allowed only 1 parent at a time). Not all posted guidelines had a date associated with when the visitor restrictions were updated. When dates were available, most were changed in the fall, with 3 updates in November, 6 updates in December, and 3 in January. In Table 3, we outline the updated visitor categories.

Regardless of which restrictions were in place, common requirements in children's hospitals included practicing physical distancing and wearing masks. Some hospitals also stated that visitors would be screened on arrival; this screening process generally involved asking questions about visitors' health and recent travel, as well as temperature screening in some instances.

DISCUSSION

To our knowledge, this is the first systematic review of visitor restrictions among children's hospitals, although visitor policies remain a popular topic in the media and academic circles, as evidenced by op-eds and commentaries.^{6,7,10,12–15} We systematically categorized changes to the US children's hospitals' visitor guidelines during a pandemic and found wide variation in visitor guidelines. Every hospital with posted visitor guidelines stated their changes were directly related to the COVID-19 pandemic. The variation we noted in visitor policies may reflect health care systems' disjointed responses to visitor restrictions for pediatric patients, carrying the potential for unintended consequences. To the extent that parents are truly valued as essential members of the care team

during their child's hospitalization, updated visitor policies should align with these principles. Yet it may be difficult to balance these fundamental values with public health concerns and infection control protocols intended to keep communities and hospitals safe.

With our findings, we suggest that there is wide variation in visitor guidelines in US children's hospitals during COVID-19 and that most of these policies did not change much. Such wide variation suggests that children and their parents are receiving differential treatment across US children's hospitals during the COVID-19 pandemic, which may greatly impact their care and outcomes. When parents are restricted from visiting their children in the hospital, both parents and children experience a constellation of negative consequences. These include dissatisfaction with care¹⁶ and in-hospital experience, increased financial stressors, emotional strain, isolation, and disconnection,¹⁷ as well as possible safety implications related to decision-making and plan of care.¹⁸ These restrictive policies and practices split the family unit and undermine years of work toward increasing parent engagement and embedding inclusive family-centered policies into the health care system, especially in pediatrics.¹⁹ In addition, the practical implications for blended families or those that rely on multiple support people is significant. Conversely, when visitor restrictions are eliminated, family satisfaction with care improves along with nursing perceptions of care.²⁰ The psychosocial stressors resulting from restrictive hospital policies for children only amplify the collective emotional and interpersonal burden families experience during a child's hospitalization.

In multiple studies and news articles, the intense dissatisfaction related to restrictive visitor policies during COVID-19^{2,10,14,16,21–24} is documented, but the subsequent impact of these changes on families and pediatric patients are poorly understood. Data from hospital visitation records, medical records, empirical research on families' experiences, and discussions with administrators could enhance the understanding of how

TABLE 2 χ^2 -Square Analysis of Hospital Characteristic and Visitor Restriction

	Less Strict, ^a <i>n</i> (%)	More Strict, ^b <i>n</i> (%)	χ^2	<i>P</i>
Magnet status	75 (35.5)	136 (64.4)	0.25	.61
Size	65 (36.1)	115 (63.8)	3.33	.06
Type	75 (35.5)	136 (64.4)	0.17	.67

^a Categories 1 and 2.

^b Categories 3, 4, and 5.



FIGURE 1 Geographical variation in visitor guidelines.

COVID-19 visitor policy changes affect patients and their families or its potential impact on clinicians' decision-making and/or engagement with families. A recent study revealed that parental presence in NICUs during COVID-19 declined by 30% and led to a 39% reduction in participation in rounds.²¹ Guidelines exist for the management of pediatric intensive care populations with severe acute respiratory syndrome coronavirus 2 infection, but they do not address parental presence specifically.²⁵

Although the visitor policy changes were likely enacted to limit the spread of COVID-19, there is limited evidence documenting whether COVID-19–related changes were actually effective in reducing community or in-hospital transmission. Researchers in a few studies suggest seasonal visitor restrictions are associated with a reduction in hospital transmission of respiratory illness.^{4,5} Yet these restrictions are different from COVID-19 visitor restrictions because they focus on those actively ill or limit visitors in a specific area of the hospital (ie,

up to 4 individual visitors in ICUs). The potential risks of viral transmission and potential for in-hospital spread of nosocomial infections warrants some limitation to visitors, but when robust infection control practices are implemented (eg, social distancing and masks), there is minimal risk of nosocomial spread.²⁶ When restrictive visitor practices are deemed necessary, the rationale behind the policies and implementation should be equitable, transparent, and unambiguous.¹ A unified response from advocacy groups, such as the Institute for Patient and Family-Centered Care and the American Academy of Pediatrics, is therefore needed to guide administrators in creating policies that aim to preserve parental presence in times of crisis (eg, COVID-19) while minimizing disease transmission.

Our data were limited to a cross-sectional view of posted guidelines within a discrete

TABLE 3 Updated Visitor Categories (*n* = 55)

	June, <i>n</i> (%)	February, <i>n</i> (%)
Category 1, 2 visitors	2 (3.6)	4 (7.3)
Category 2, 2 parents	19 (34.5)	34 (61.8)
Category 3, 1 parent	30 (54.5)	16 (29.1)
Category 4, 1 designated	4 (2.3)	1 (1.8)
Category 5, no visitors	0 (0)	0 (0)

window of review, although the information for this period was relatively comprehensive with associated dates that indicate most guidelines had been in place for months. Furthermore, we conducted a review of ~25% of the guidelines and found that most restrictions were still in place, which confirms our initial review of visitor guidelines. The analysis was limited by the lack of dates associated with when guidelines were posted and limited by the information provided (eg, difference between adult hospitals or specific units). Yet our findings reveal associated changes from previously implemented visitation policies because the updated information directly referenced changes in response to the pandemic. Our evaluation of these policies could not account for the community burden or spread of COVID-19 or whether state executive orders influenced the severity of restrictions. Unfortunately, we were unable to completely address this limitation in our study; this level of detail was not feasible within the resource constraints of our study, particularly because of the different months when guidelines were posted, time of review, and difficulties in linking policy implementation to contemporaneous community spread.

We recognize that many hospitals had formal or ad hoc exception processes to visitor restrictions, but these processes were not publicly available and could not be explored in our study. More information is needed about how administrators decided to change hospital policies during COVID-19, what evidence was used, and the process for granting exceptions. Future work should include information from clinicians, nurses, and administrators regarding the rationale for the updated visitor restrictions. Discussions with these individuals would add further context and insight into the ethical implications of the guidelines and possibly shed light on whether they had a disproportionate effect on vulnerable groups (eg, individuals of low socioeconomic status, 1-parent homes, individuals with a lack of transportation, and minority groups). More evidence is also needed to determine if restrictive policies played a role in controlling transmission rates. It is similarly important to evaluate

whether different restriction categories were effective in mitigating COVID-19 or other infectious disease acquisition or transmission.

CONCLUSIONS

Our findings revealed the arbitrary nature in which visitor restrictions were updated in hospitals during the early months of the COVID-19 pandemic. Empirical research involving key stakeholders, researchers, and public health officials regarding the decision-making process is needed, and the ethical implications of restrictive parental visitation policies require close attention. Understanding how hospital administrators approach visitor policy exceptions is an additional consideration requiring attention, particularly with regard to equity and access.²⁴ Restrictive visitor practices inhibit parents' abilities to provide instrumental in-hospital care to their sick children. When parental presence at the height of the COVID-19 pandemic was limited in the United States, albeit for worthy goals (eg, transmission prevention and personal protective equipment preservation), the policies implicitly or explicitly deprioritized basic principles of family-centered care for children, with potential short- and long-term effects on children and families. Future work needs to focus on how to optimize balancing public safety and preserving family-centered care and parental authority in times of crisis and to avoid the unintended consequences of well-intended infection control measures.

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