

ORIGINAL ARTICLE

LITIGIOUS LEGAL RISKS IN HEALTH CARE\*  
RISCOS LEGAIS LITIGIOSOS NA ASSISTÊNCIA À SAÚDE  
RIESGOS LEGALES LITIGIOSOS EN ATENCIÓN MÉDICA

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ABSTRACT

**Objective:** to analyze the lawsuits that involved legal or litigious legal risks in health care. **Method:** this is a quantitative, descriptive, retrospective study. 1,138 valid processes from the universe of 1,599 were searched. Data collection form was used as well as Excel spreadsheet for the organization and analysis of court proceedings, frequency and reason in public, private and philanthropic hospitals. **Results:** a higher occurrence of the ratio of processes in private hospitals was found (8.06). The risk of medical error was higher (58.1%) in private hospitals (65.6%), outpatient service (65.0%) and surgical area (58.9%). **Conclusion:** It is noteworthy that the litigious legal risks in care were more frequent in private hospitals. The assistance provided in quality public hospitals has been shown, and the results are conclusive and revealing. However, it is important to expand this type of study to better characterize the risk profile regarding the type of service and the clientele, generating a parameter for the evaluation of quality of care provided throughout the national territory. **Descriptors:** Risk; Liability, Legal; Responsabilidad Civil; Delivery of Health Care; Patient Safety; Health's Judicialization.

RESUMO

**Objetivo:** analisar as demandas judiciais que envolveram riscos legais ou jurídicos litigiosos na assistência à saúde. **Método:** trata-se de um estudo quantitativo, descritivo, retrospectivo. Pesquisaram-se 1.138 processos válidos do universo de 1.599. Utilizou-se ficha de coleta de dados assim como a planilha Excel para organização e análise dos processos judiciais, frequência e razão nos hospitais públicos, privados e filantrópicos. **Resultados:** revelou-se ocorrência maior da razão de processos nos hospitais privados (8,06). Apresentou-se o risco erro médico com maior concentração (58,1%) nos hospitais privados (65,6%), no serviço ambulatorial (65,0%) e na área cirúrgica (58,9%). **Conclusão:** destaca-se que os riscos legais litigiosos na assistência foram mais frequentes nos hospitais privados. Mostrou-se a assistência prestada em hospitais públicos com qualidade, sendo os resultados conclusivos e reveladores, entretanto, é importante ampliar esse tipo de estudo para melhor caracterização do perfil do risco diante do tipo de serviço e da clientela, gerando parâmetro para a avaliação da qualidade da assistência prestada em todo o território nacional. **Descritores:** Risco; Responsabilidade Legal; Responsabilidade Civil; Assistência à Saúde; Segurança do Paciente; Judicialização da Saúde.

RESUMEN

**Objetivo:** analizar las demandas judiciales que involucraron riesgos legales o litigiosos en la atención médica. **Método:** este es un estudio cuantitativo, descriptivo, retrospectivo. Se buscaron 1.138 procesos válidos del universo de 1.599. Se utilizó el formulario de recopilación de datos, así como una hoja de cálculo Excel para la organización y el análisis de los procedimientos judiciales, la frecuencia y la razón en hospitales públicos, privados y filantrópicos. **Resultados:** se encontró una mayor incidencia de la proporción de procesos en hospitales privados (8.06). El riesgo de error médico fue mayor (58.1%) en hospitales privados (65.6%), servicio ambulatorio (65.0%) y área quirúrgica (58.9%). **Conclusión:** cabe destacar que los riesgos legales litigiosos en la atención fueron más frecuentes en los hospitales privados. Se ha demostrado la asistencia brindada en hospitales públicos de calidad y los resultados son concluyentes y reveladores. Sin embargo, es importante ampliar este tipo de estudio para caracterizar mejor el perfil de riesgo con respecto al tipo de servicio y la clientela, generando un parámetro para la evaluación de calidad de la atención prestada en todo el territorio nacional. **Descriptor:** Riesgo; Responsabilidad Legal; Responsabilidad Civil; Prestación de Atención de Salud; Seguridad del Paciente; Judicialización de la Salud.

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## INTRODUCTION

It is known that the quality of medical and hospital services is a goal that transcends the territorial boundaries of nations to become a worldwide aspiration, as it is targeted by various sectors of society and has as its assumptions the reduction of risks that impact cost / benefit of services rendered in relation to corporations and human losses in patients and families. The failures in the provision of health care, reported daily in the press and professionally experienced by the researcher for the choice of this study were boosted. Another relevant factor was the lack of qualified information in the academic world. In this context, we feel the need to better know this reality in order to generate reliable and useful data in the elaboration of public policies to improve the quality of care services provided to society. From this stir arises the theme “Litigious legal risks in health care in São Paulo”.

“Risk is a function of the frequency of occurrence of possible accidents or damage (consequences) generated by unexpected / desired events”.<sup>1,77</sup>

It is shown that “Legal risk is the measure of uncertainty related to the returns of an institution for lack of a complete legal basis for its operations - or for carelessness or incompetence. Note that Legal Risk is the risk of non-compliance with applicable laws, rules, regulations, agreements, practices or ethical standards, including the risk that the nature of the product / service rendered may make the institution particularly vulnerable to disputes”.<sup>2,82</sup>

It is understood that the legal risk is subdivided into two species. The first refers to the risk of loss arising from legal proceedings for violations of laws and / or regulations or acts that result in civil liability; the second, in turn, concerns losses arising from technical failures in the way transactions are performed.<sup>3,10</sup>

It is noteworthy that “legal risk is the measure of potential losses arising from the violation of legislation, the creation of new taxes (or the reinterpretation of existing ones) or the existence of unclear or undocumented contracts, encompassing legislation risk, tax and contract risk”.<sup>4,6</sup>

It is the risk against the law and the contract “legal or legal risk” which, analyzed in the light of the processes existing in the judiciary, is called “litigious legal or legal risk”.<sup>5</sup>

Based on the various concepts presented, the risks in health, especially in the medical-hospital environment, are the potential for failures in the provision of health care services, such as medical errors, drop in patient on the stretcher, nosocomial infection, negative medical attention in situations that endanger someone's life,

equipment failures, among others, so as to cause harm to the recipient of the services or his family.

From this conceptual evolution, it is possible to define the litigious or legal risks in hospitals as litigations (processes) in the Judiciary against hospitals due to failures in the provision of health care services.

## OBJECTIVE

- To analyze the lawsuits that involved litigious legal or legal risks in health care in São Paulo.

## METHOD

This is a quantitative, descriptive, retrospective study, approved by the Research Ethics Committee of IAMSPE - Consubstantiated Opinion No. 1,594,742, released on 06/16/2016. It was held in a database of the Court of Justice of São Paulo, with the cases distributed from 2008 to 2012. We analyzed 1,138 valid lawsuits against general and specialized, public, private and philanthropic hospitals of São Paulo, capital, Brazil. relating to the provision of health care, of a universe of 1,599. The list of general and specialized hospitals and their nature (type) was extracted from the National Register of Health Facilities (CNES) - sites: <http://cnes2.datasus.gov.br/> and <http://cnes.datasus.gov.br/pages/estabelecimentos/consulta.jsp>. Possession of this relationship, the research was done through the site [www.tjsp.jus.br](http://www.tjsp.jus.br) or directly in the file, in loco, collecting the information through the collection form.

Then, an Excel spreadsheet was elaborated with all the data, generating figures and tables that show the analysis of the following aspects: ratio of processes by public, private and philanthropic hospitals in São Paulo, capital; number of valid processes distributed for the purpose of configuring medical error; refusal of medical attention, nosocomial infection and others (various causes); comparison of risks with the public, private and philanthropic hospital nature; comparison of risks with the type of service provided at the hospital, outpatient and emergency room; comparison of risks with clinical and surgical areas of expertise.

The ratio of lawsuits by hospital type was obtained by the number of valid lawsuits distributed against public, private and philanthropic hospitals divided by the number of public, private and philanthropic hospitals in São Paulo. The types of risks were defined based on the researcher's experience and recurring complaints in the media. The medical error described in the research considered the framing performed in the judicial proceedings. The occurrence of diagnostic error, prescription error, surgical error, medication error, institutional error, among others, were verified. In addition,

the investigated claims made no adequate distinction between medical error itself, its species and other underlying errors.

The results show that the litigious legal risks in the provision of health services in the city of São Paulo are recurrent and that their highest concentration is in the private care sector (Figure 1).

**RESULTS**

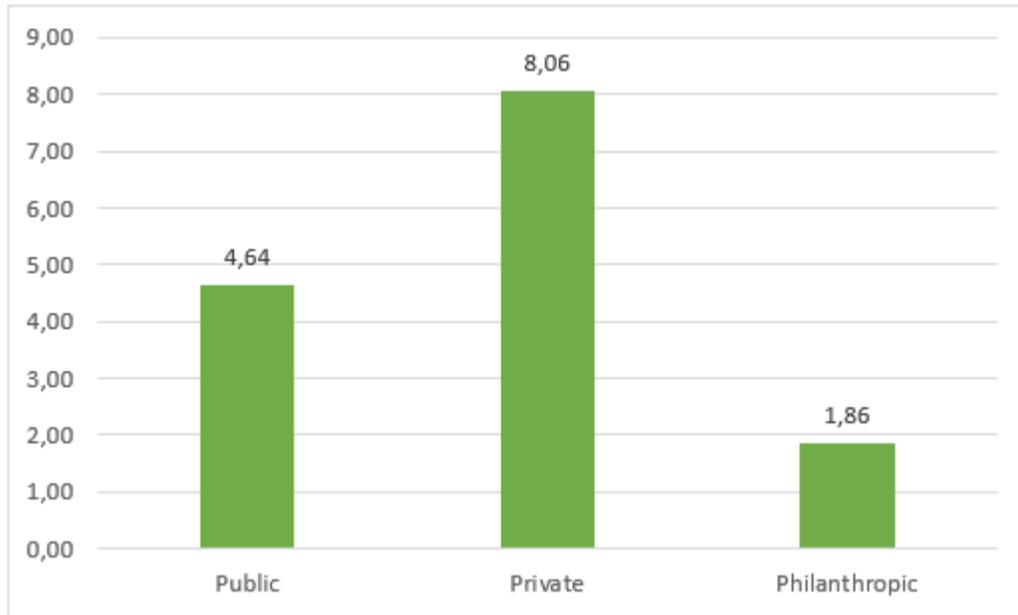


Figure 1. Reason of processes researched by public, private and philanthropic hospital in São Paulo, capital. São Paulo (SP), Brazil, 2008-2012. Source: São Paulo Court of Justice (TJSP) <sup>4</sup> and National Register of Health Facilities (NRHF).<sup>5</sup>

Among the researched risks, medical error was the most frequent in health care services in the state capital (Figure 2), and the other risks are

statistically insignificant and do not have relevance to the results.

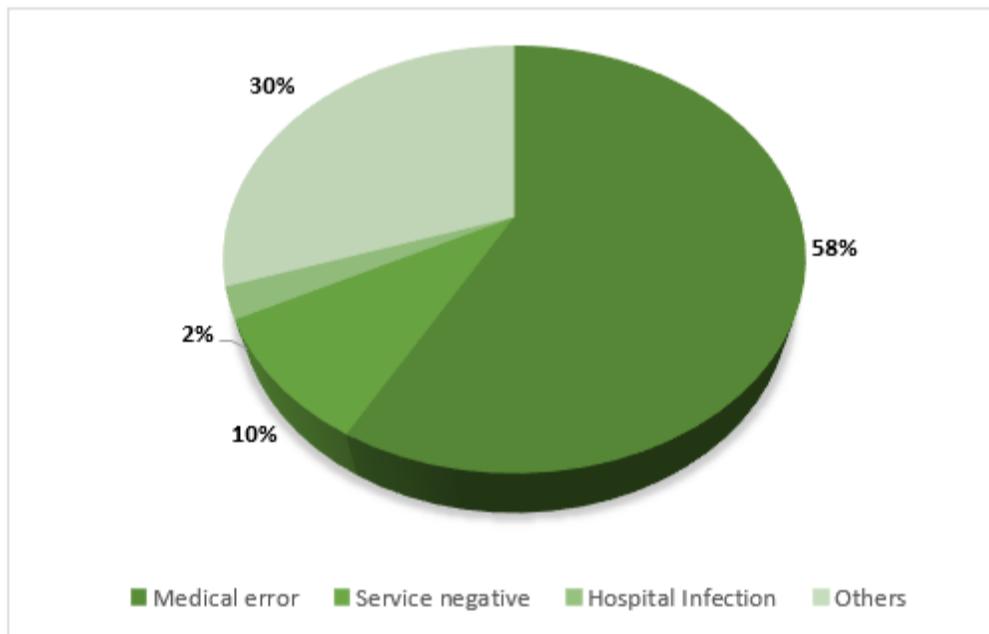


Figure 2. Distribution of valid processes according to the types of risks / causes. São Paulo (SP), Brazil, 2008-2012. Source: São Paulo Court of Justice (TJSP).<sup>4</sup>

The information in table 1 is shown to be consistent with the data in figure 1 and the risk of

medical error was more frequent in private hospitals.

Table 1. Comparison between the risks (causes) and the hospital nature of the valid researched processes. São Paulo (SP), Brazil, 2008-2012.

| Type of Hospital   | Public |      | Private |      | Philanthropic |     | TOTAL |
|--------------------|--------|------|---------|------|---------------|-----|-------|
|                    | N      | %    | N       | %    | N             | %   |       |
| Medical error      | 202    | 27.4 | 484     | 65.6 | 52            | 7.0 | 738   |
| Service Negative   | 28     | 24.3 | 83      | 72.2 | 4             | 3.5 | 115   |
| Hospital infection | 7      | 25.0 | 21      | 75.0 | 0             | 0.0 | 28    |
| Others             | 30     | 8.3  | 326     | 90.1 | 6             | 1.7 | 362   |

Source: São Paulo Court of Justice (TJSP)<sup>4</sup> and National Register of Health Facilities (NRHF).<sup>5</sup>

Table 2 indicates that the legal risk of medical error is more frequent in the outpatient service; however, the result is very close to the other

services analyzed (emergency and hospitalization).

Table 2. Comparison of risks (causes) with the type of service provided. São Paulo-SP), Brazil, 2008-2012.

| Type of service provided | Hospitalization |      | Ambulatory |      | Emergency  |      |
|--------------------------|-----------------|------|------------|------|------------|------|
|                          | N               | %    | N          | %    | N          | %    |
| Medical error            | 470             | 55.8 | 130        | 65.0 | 87         | 62.1 |
| Service Negative         | 63              | 7.5  | 30         | 15.0 | 18         | 12.9 |
| Hospital infection       | 25              | 3.0  | 0          | 0.0  | 3          | 2.1  |
| Others                   | 284             | 33.7 | 40         | 20.0 | 32         | 22.9 |
| <b>Total</b>             | <b>842</b>      |      | <b>200</b> |      | <b>140</b> |      |

Source: São Paulo Court of Justice (TJSP)<sup>4</sup>.

Table 3 shows the most frequent medical error in surgeries, following the worldwide trend. However, clinical data is very close.

Table 3. Comparison of risks (causes) with the area of expertise. São Paulo, 2008-2012.

| Specialty Area     | Clinical   |      | Surgical   |      |
|--------------------|------------|------|------------|------|
|                    | N          | %    | N          | %    |
| Medical error      | 298        | 57.1 | 389        | 58.9 |
| Service Negative   | 52         | 10.0 | 59         | 8.9  |
| Hospital infection | 6          | 1.1  | 22         | 3.3  |
| Others             | 166        | 31.8 | 190        | 28.8 |
| <b>Total</b>       | <b>522</b> |      | <b>660</b> |      |

Source: São Paulo Court of Justice (TJSP)<sup>4</sup>.

## DISCUSSION

It is evident that health care services in the municipality of São Paulo carry many contentious legal risks. The reason for lawsuits by hospital type (nature) is consistent with other research results, showing that the frequency of litigation resulting from failures in the provision of health care in private hospitals is considerably higher than in public and philanthropic hospitals.

The distributed processes are totaled in order to qualify medical error more than half of all studied causes, being statistically significant in relation to the other risks researched and

becoming a reference in the analysis of other variables. This information is corroborated, in theory, by data from research conducted with judgments of the Superior Court of Justice (STJ), regarding medical error in normal births in the states of São Paulo, Minas Gerais and Rio de Janeiro, stating that most concentration occurred in private hospitals.<sup>6</sup> The Yearbook on Hospital Safety Assistance in Brazil, published in 2017, contains the following results on medical error / adverse events worldwide: Latin America (Argentina, Colombia, Costa Rica, Mexico and Peru): 10.5% AE (Adverse Events) in hospital care, 60% being preventable<sup>7</sup> United States of America:

2004 (33.2%) AE - three tertiary hospitals; 2002-2007 (18.1%) - ten North Carolina hospitals; <sup>6</sup> United Kingdom: 10% AE of all hospital admissions; <sup>7</sup> Saudi Arabia: 34.5% of the disputes were for faulty errors; <sup>8</sup> Spain: a frequency of medical error is in the order of 25.9% of court verdicts.<sup>9</sup>

According to the Federal Council of Medicine (FCM),<sup>11</sup> it is stated that medical error is the damage caused to the patient by the action or inaction of the physician in the practice of the profession, without the intention of committing it. It is noteworthy that there are three possibilities of causing harm and achieving error: recklessness, malpractice and negligence.

It is noted that the study failed to show relevant numbers in relation to negative hospital-medical care and nosocomial infection, although the medical literature describes a large occurrence of this (Hospital Infection) in health care, both in Brazil and worldwide, highlighting In this sense, an excerpt from ANVISA's National Program for Prevention and Control of Health Care-Related Infections:<sup>11</sup>

“In this regard, it can be seen from the scientific literature that hundreds of millions of patients are affected by Healthcare-Related Infections (HCRI) each year worldwide, leading to very significant mortality and huge financial losses to the health systems. Out of every 100 hospitalized patients, seven in developed countries and ten in developing countries will acquire at least one HCRI”.<sup>7,11</sup>

It is understood that hospital infection has always been one of the major concerns of health institutions, professionals and patients. After much discussion and some procedures adopted by the institutions, its occurrence has decreased and there are already data that fall within the limits and levels acceptable by the World Health Organization (5%), as is the case of Hospital Aliança (Salvador-BA), which has a rate of 1.5%.<sup>12</sup> The data shown in Figure 2 show a 2.4% hospital infection rate in São Paulo, well below the tolerable limits of WHO (5%).

It is reported from data exposed at an international seminar held by WHO in 2010 that the rates of nosocomial infection or HAI (Health Care Related Infection) are still very high: Brazil (14%); United States (4.5%); Canada (10.5%) and Europe (7.1%).<sup>13</sup>

Thus, it is understood that the justification for the low number of lawsuits distributed in order to qualify the refusal of medical-hospital care and hospital infection is due to the fact that medical error is a ground of greater legal relevance to effect of origin of the lawsuit and respective condemnation of the hospital institution to the payment of indemnity for moral and material

damages, being the other causes absorbed by the greater cause (medical error).

It is not enough, if this were not enough, to convict a health facility of a hospital infection for a more specific procedure in relation to investigation and testing, especially as regards the demonstration of its occurrence in the hospital environment, the period of incubation of the infectious agent, if the hospital has a program for the control of nosocomial infection and if this program is correctly fulfilled, among other circumstances.

It is pointed out that the refusal of medical-hospital care, analyzed in its strict sense, is difficult to occur, since it would require irresponsible act of the professional or institution, denying care to the patient without any plausible justification, which would constitute the crime of distress omission. There were a large number of cases of refusal of urgent medical-hospital care, where the patient needed immediate care and was not provided for waiting for the authorization of the health plan or for understanding that the situation would not be urgent. It is noted that, in these situations, the patient either went to another hospital or returned home or ended up dying without assistance.

Comparing the risks with the hospital nature, we found a higher concentration of processes in private hospitals in all risks analyzed. Note that this data analyzed in the context of the research and confirmed with the information extracted from the yearbook of the Institute of Applied Economic Research<sup>14</sup> may lead to the understanding that health care actually provided by public hospitals is of better quality than that provided by private hospitals, and public hospitals suffer from the imbalance between the high demand for specialist consultations and the small number of such doctors, thus generating queues and user dissatisfaction. It should be warned, however, that while this understanding may prove defensible, it is well to be aware that those who most litigate for free inputs and services are the people with the best purchasing power.

It was concluded, in a study conducted during 2005, that the majority of patients were represented by private lawyers (54%) and lived in areas of the municipality with the lowest degree of exclusion (63%), which, according to the authors, indicates inequity in distribution of resources.<sup>15</sup> It is described that this situation of inequality and privileged treatment for people with better socioeconomic conditions and with access to information is evident in São Paulo and contradicts the idea of equality proposed by the Unified Health System (UHS).<sup>16</sup>

There is the medical error, comparing the risks with the services provided, higher occurrence in all services, more often in the outpatient service

(65%), contradicting the global trend (hospitalization), and, in hospitalization, the error doctor was also the most recurrent. The Health Care Safety in Brazil Yearbook, published in 2017, shows the following results on medical error / adverse events in hospitalization worldwide: Brazil: 7.6% AE - Adverse Events - (66.7% error)<sup>7</sup> Canada: 12.7% AE in hospital admissions;<sup>7</sup> Australia: 16.6% AE in hospital admissions.<sup>7</sup>

It is revealed that medical error was also more frequent in the surgical area, comparing the risks with the area of specialty, although the difference with the clinical area is statistically insignificant. This information is corroborated by data from research carried out with judgments of the São Paulo Court of Justice (TJSP) in a research paper entitled "Civil liability for medical error according to the jurisprudence of the São Paulo State Court of Justice" which, although dealing with of medical activity modalities and with greater scope, also concluded that medical error is more frequent in the surgical area.<sup>17</sup>

## CONCLUSION

The results show that the litigious or legal risks in health care services are still very high, generating several consequences that directly or indirectly compromise the expected quality of these services.

Health care services offered by quality public hospitals are provided, although they are widely criticized in the general media, presenting less risk than services provided by private hospitals.

It is known that the ratio of litigation by private hospital in São Paulo, capital, is very high and should deserve the attention of health managers, since the indemnities arising from convictions for failures in care services have a great impact on the increase of institutional costs.

It would be the deficiency of the public assistance service, it seems, the insufficiency of professionals, especially medical specialists, to meet the great demand of procedures and consultations, generating long lines and prolonged waiting time.

It is concluded that, although the research results were satisfactory and revealing, it is necessary to consider the need to expand this type of study to other regions of the state and even to the country, aiming at a better characterization of the risk profile regarding the type of service. and clientele, with analysis of other relevant variables, such as clinical and non-clinical errors, diagnostic errors, medication errors, institutional errors, among others.

## REFERENCES

- Hinrichsen SL. Qualidade e segurança do paciente: gestão de riscos. Rio de Janeiro: MedBook; 2012.
- Almeida RG. O capital baseado em risco: uma abordagem para operadoras de planos de saúde. São Paulo: Sicurezza; 2011.
- Mccormick R. Legal risk in the financial markets. Nova Iorque: Oxford Press; 2006.
- Duarte Júnior AM, Gestão de riscos para fundos de investimentos. São Paulo: Prentice Hall; 2005.
- Tribunal de Justiça de São Paulo. Poder Judiciário. Consulta de processos do 1º grau [Internet]. São Paulo: TJSP [cited 2019 May 01]. Available from: <https://esaj.tjsp.jus.br/cpopg/open.do>.
- Ministério da Saúde (BR), Cadastro Nacional de Estabelecimentos de Saúde-CNES. Consulta estabelecimento [Internet]. Brasília: Ministério da Saúde; 2019 [cited 2019 May 12]. Available from: <http://cnes.datasus.gov.br/pages/estabelecimento/consulta.jsp>
- Rodrigues TM, Nunes AA. Indemnities in obstetrics: a study of the decisions of the Court of Justice of Brazil 2004-2014. R Dir Sanit. 2018 Mar/June;19(1):121-43. DOI: <https://doi.org/10.11606/issn.2316-9044.v19i1p121-143>
- Couto RC, Pedrosa TMG, Roberto BAD, Daibert PB, Abreu ACC, Leão ML. Anuário da Segurança Assistencial Hospitalar no Brasil [Internet]. Belo Horizonte: IESS; 2017 [cited 2018 June 21]. Available from: [https://www.iess.org.br/cms/rep/anuario\\_atualizado\\_0612.pdf](https://www.iess.org.br/cms/rep/anuario_atualizado_0612.pdf)
- AlJarallah JS, AlRowaiss N. The pattern of medical errors and litigation against doctors in Saudi Arabia. J Family Community Med. 2013 May; 20(2):98-105. DOI: [10.4103/2230-8229.114771](https://doi.org/10.4103/2230-8229.114771)
- Giraldo P, Sato L, Sala M, Comas M, Dywer K, Castells X. A retrospective review of medical errors adjudicated in court between 2002 and 2012 in Spain. Int J Qual Health Care. 2016 Feb; 28(1):33-9. DOI: [10.1093/intqhc/mzv089](https://doi.org/10.1093/intqhc/mzv089)
- Conselho Federal de Medicina. A vulnerabilidade profissional e o alegado erro médico [Internet]. Brasília: CFM; 2018 [cited 2019 June 15]. Available from: [http://portal.cfm.org.br/index.php?option=com\\_content&view=article&id=27920:2018-10-15-15-09-18&catid=46](http://portal.cfm.org.br/index.php?option=com_content&view=article&id=27920:2018-10-15-15-09-18&catid=46)
- Ministério da Saúde (BR), Agência Nacional de Vigilância Sanitária. Programa Nacional de Prevenção e Controle de Infecções Relacionadas à Assistência à Saúde (2016-2020) [Internet]. Brasília: Ministério da Saúde; 2016 [cited 2018 Aug 10]. Available from: <https://periodicos.ufpe.br/revistas/revistaenfermagem/index>

<http://portal.anvisa.gov.br/documents/33852/3074175/PNPCIRAS+2016-2020/f3eb5d51-616c-49fa-8003-0dcb8604e7d9>

13. Compromisso com a Qualidade Hospitalar. Hospital Aliança (Salvador-BA) registra sua menor taxa de infecção hospitalar dos últimos 14 anos [Internet]. São Paulo: CQH; 2014[cited 2018 Aug 10]. Available from: [http://www.cqh.org.br/portal/pag/doc.php?p\\_ndoc=891](http://www.cqh.org.br/portal/pag/doc.php?p_ndoc=891)

14. Ministério da Saúde (BR), Secretaria de Assuntos Estratégicos da Presidência da República, Instituto de Pesquisa Econômica Aplicada. Sistema de Indicadores de Percepção Social - Saúde [Internet]. Brasília: Ministério da Saúde; 2011 [cited 2017 June 17]. Available from: [http://www.ipea.gov.br/portal/images/stories/PDFs/SIPS/110207\\_sipssaude.pdf](http://www.ipea.gov.br/portal/images/stories/PDFs/SIPS/110207_sipssaude.pdf)

15. Vieira FS, Zucchi P. Distortions to national drug policy caused by lawsuits in Brazil. *Rev Saúde Pública*. 2007 Apr; 41(2):214-2. DOI: [10.1590/S0034-89102007000200007](https://doi.org/10.1590/S0034-89102007000200007)

16. Chieffi AL, Barata RB. "Judicialization" of public health policy for distribution of medicines. *Cad Saúde Pública*. 2009 Aug;25(8):1839-49. DOI: [10.1590/S0102-311X2009000800020](https://doi.org/10.1590/S0102-311X2009000800020)

17. Garfinkel A. Responsabilidade civil por erro médico segundo a jurisprudência do Tribunal de Justiça do Estado de São Paulo (Síntese). *Rev Direito GV* [Internet]. 2007 July/Dec [cited 2018 Aug 10];3(2):37-58. Available from: <http://bibliotecadigital.fgv.br/ojs/index.php/revdireitogv/article/view/35181>

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