



## Medical Tourism Websites with an Approach to Information Content: A Systematic Review

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### Abstract

**Background:** The information content of medical tourism websites could influence the decisions patients and their families make regarding medical centers. This study aimed to investigate the information content of medical tourism websites.

**Methods:** This systematic review was carried out in 2017. Key terms used for searching consisted of, but not restricted to, medical tourism, information content, information needs, and medical tourism website. The terms were searched on PubMed, Science Direct, Web of Science, Embase, ProQuest and Cochrane. One hundred and ninety-two articles out of 1185 retrieved were duplicated and removed from the study. Titles and abstracts of the remaining identified studies were scanned considering the aim of the study. Finally, 31 relevant studies were included in the study.

**Results:** The information content of medical tourism websites can be grouped into three main categories including general information (with six subgroups), medical information (with eight subgroups) and tourism information (with one subgroup). The subgroups include information about medical centers, target country, costs and insurance, contact details, website information, photo galleries, the quality of services, trustworthiness, the quality of supportive services, risks, patient rights, physicians and their specialties, and patient instructions for receiving medical and tourism services.

**Conclusion:** The medical tourism websites should provide a wide range of information. Considering the important role of medical tourism websites in meeting patients' information needs, the relevant bodies should improve the information content of medical tourism websites to help patients to make their decisions reliably.

**Keywords:** Information needs; Information content; Medical tourism; Medical tourism website

## Introduction

As a key element of the industrial and other economic sectors, tourism is considered one of the most important means of revenue collection and job creation (1). A great portion of nations Gross Domestic Products (GDP) is associated with this industry. In 2014, for example, 3.1% of world's GDP and 3.6% of its employment was created by the tourism industry (2).

As a modern arena of tourism, medical tourism is defined as the organized travel of an individual outside his/her routine healthcare system and to a different country to receive better medical services (3, 4). In other words, medical tourism consists of receiving a variety of medical services outside the country of origin. Several important reasons are underlying this kind of journey in-

cluding healthcare price differences(5-8), dissatisfaction with the medical system in one's own country (9), extended waiting lists in Western countries, lack of medical services for some specific illnesses (6, 7), as well as legal prohibition of certain medical activities for religious (6), ethical or cultural reasons (7).

Considering the positive outcomes of medical tourism for the targeted country such as job creation, development of the necessary infrastructure for the health care system, as well as the promotion of the quality of treatment services, most governments have developed a keen interest in its revenues and development(10). In the literature, there is great emphasis on the expansion of this industry, the crucial role of relevant information and medical tourism websites (11).

Medical tourism websites are designed to serve two main purposes; providing medical tourists with relevant information (12, 13) and making internet bookings as efficient and convenient as possible (14), so the number of individuals purchasing these services would increase (15). According to a recent study, 49% of American medical tourists use the internet for finding their needed information (16).

Medical tourism websites provide a variety of medical, travel, financial, and legal information (8). Patients' access to accurate and complete information helps them with making informed choices about their health which in turn may lead to increased satisfaction (14, 17, 18).

The information content of these websites is an element of the quality of their service (19). However, rarely if ever, the content of such websites are evaluated. Accordingly, these websites do not meet health seekers' needs due to their susceptibility to inaccurate or poor information (18, 20).

Given the importance of the information offered on medical tourism websites and the ever-growing number of their users, managers and stakeholders in this sector must take the information content of such websites more seriously (21) and implement strategies to provide the clients with clear and relevant information (18).

This study thus attempted to find out the information content provided on medical tourism websites.

## Methods

In this review study, publications were found systematically through searching PubMed, Science Direct, Web of Science, Embase, ProQuest and Cochrane Library. Keywords included, but not limited to, medical tourism, medical travel, medical tourism website, information needs, and information content. The search strategy was "health tourism" OR "medical tourism" OR "medical travel" OR "health travel" OR "medical treatment abroad" OR "surgical travel" OR "medical care tourism" OR "medical procedure vacation" OR "cross-border care" OR "international health care" OR "travel for care" AND "information need" OR "web" OR "website" OR "site" OR "webpage" OR "web content".

Studies included in this review published in English between 2000 and 2017 and were relevant to the aim of the study. The screening of the studies was initially conducted in relation to the relevance of the title and the abstract and then in relation to the availability of relevant full texts. Publications such as letters to chief editors and books were excluded from the study.

According to the Fig. 1, 1185 records were initially found through searching the databases. Out of 1185 records screened, 192 articles were repetitive and thus excluded from the study. The titles and abstracts of the remaining 993 studies were screened to find relevant studies, of which 918 studies were excluded. The remaining 75 articles were then checked in relation to the availability of the full texts. Finally, 31 relevant articles were included in the study. The critical assessment of the retrieved records was carried out by the research team according to the checklists of Adelaide University. The results were extracted through analyzing the content of the articles.

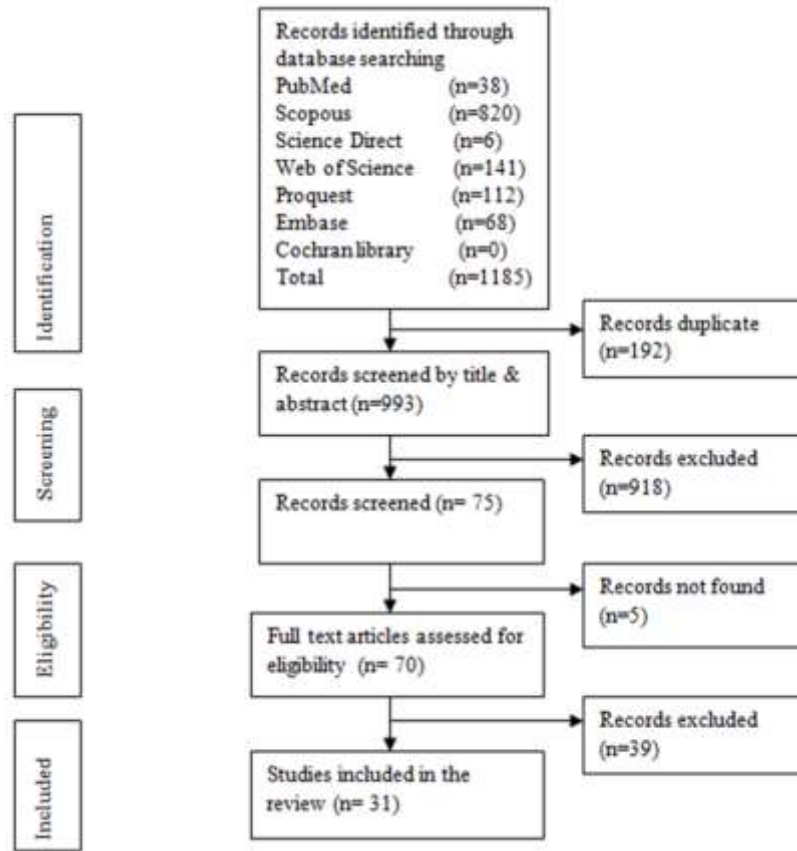


Fig. 1: The flow diagram of search and selection of relevant articles

## Results

All hospital websites and medical tourism facilitator firms provided patients with somewhat similar information. The findings are presented in three primary categories – general information, medical information, and tourism information, 15 sub-categories and 167 secondary sub-categories.

### General information

The general information provided on medical tourism websites is divided into the following 6 sub-categories:

*Profiles of Medical Tourism Organizations:* mission and vision (11, 16, 22, 23), the organizations' history (11, 14, 23, 24), organizations' officials (11, 25, 26), available specialties (11, 24), the owners and partners' profiles (14, 23, 27), awards and achievements (14, 27, 28), employment opportunities (14, 23), lists of hospitals (23, 25, 27), latest

technologies (24, 27) and the list of countries patients have been referred to by firms (22, 25, 27, 29).

*Financial and Insurance Information:* the procedures provided (12, 14, 24, 25), the details of each procedure (3, 18, 23), the cost of each procedure (12, 27, 30, 31), comparisons of initial expenses in different countries (11, 25), the total expenses of the travel (22), details of money remittances (6, 14, 16, 21, 32), follow-up costs (14, 23), the lists of insurance contracts for tourists (11, 16, 21, 30), the expenses of global surgeries (11) and information on foreign exchange rates (16).

*Destination Information:* the destination and its culture (14, 23), economic profile (26), political climate (26), standards and regulations (26), and weather information (14).

*Contact Information:* phone details (11, 16, 25, 28), E-mail address (11, 14, 16, 23), fax number (11), ZIP code, international phone number (23, 33),

information request number (21, 23, 33) and the location on map (16, 22, 29, 33).

*Website Information:* website master(23), date of the last update (23, 28, 33), date of data recording (23), site map (16, 23, 28), useful links (14, 23), language options (16, 18, 20, 22, 28) and FAQ (Frequently Asked Questions) (18, 21, 23, 34).

*Photo Gallery:* images and videos of different wards of the hospital (internal and external views) (3, 11, 35-37), images of available modern diagnostic/imaging technologies and equipment (11, 16, 25, 35) images of medical/surgical procedures(24, 35), images of patients(24, 25) and images of hotels (23).

### **Medical information**

The medical information provided on medical tourism websites is divided into the following 8 sub-categories:

*Quality of Medical Centers:* Information on the hospitals' qualifications (17, 27, 35, 38), displaying the accreditation scores (18), collaboration with reputable medical centers across the world (22, 26, 30, 39), rating system of the care staff (29-31, 39), the results of patients' treatments (16, 27, 34), the nosocomial level (34), the success rate of surgical procedures (35), the average length of stay (23), patients' testimonials (27, 33, 35, 40), quality indicators (29, 31, 41), the patients' treatment experiences (28, 34, 40), quality assurance information (34, 39), and the results of patient satisfaction surveys (14, 23, 40).

*Logos of Patients' Trust:* The logo of accreditation organization (21, 23, 25, 35), the logo of membership in Medical Tourism Association (25, 35), the logo of membership in the Better Business Bureau (25, 27), links to the accreditation organization (16, 23, 27), links to insurance companies (27, 31, 39, 41) and links to online forums and social networks for reviewing the patient experience (16, 28, 39).

*Quality of Supportive Services:* Presence of physicians in the facilitator team (27, 30), the quality of accommodations for accompanying individuals (25, 35), the quality of communication (39, 40, 42), the quality of food services (16, 23, 27), the mul-

ti-lingual fluency (27, 31, 39, 41), and child welfare services (23).

*Patients' Guide to Medical Services:* Pre-operative consultation (admission) (3, 22, 25, 27), post-operative care information (18, 21, 25), follow-up care (16, 18, 33, 38), and admission procedures.

*Related Risks:* Common infections and diseases in the destination country (39), flight-related risks (36), and risks related to procedures (12, 21, 22, 39), information on prevalence and epidemiology of diseases in the destination country (43), specific recommendations on the destination (31, 40, 43), and general prevention trainings (43).

*Patients' Rights:* The patients' bill of rights (16, 18, 23, 32), privacy and confidentiality of information (16, 23, 42, 44), informed consent (18, 44), accountability to patients (44), and patients' complaints (32).

*Information about Physicians:* General information of service providers (35), specialized certificates(3, 11, 22, 40), specialty (11, 16, 40), place of graduation (11, 40), years of experience(3, 12, 18), professional qualifications (11, 16, 17, 42), their CVs (3, 12, 21, 40), physicians' photos (3, 23, 35), physicians' contact information (11, 35), special up-to-date procedures (3, 29), physicians' experience with each procedure (3), organizational affiliations (3), and insurance information in the event of malpractice(35).

*Information on medical visits:* physicians daily schedules (11), the list of physicians (23, 28, 45), selection of physicians from the lists (23, 28, 45), waiting lists (14, 23, 30, 45), patients' reservation and registration (14, 16, 22, 23), provision of tracking codes, the possibility of changing or canceling appointments (11) and the possibility of group reservations (14).

### **Tourism information**

The tourism information provided on medical tourism websites includes transportation services (27, 33, 38, 45), interpretation services (22, 33, 38, 45), concierge services (33, 38), accommodation services (16, 22, 23, 29), hotels' location map (14, 23, 28), hotels' description (14, 16, 28), hotels' facilities description (14, 23, 30), hotels and their rooms photos (14, 23). nearby hotels (23, 29),

tourist attraction tours, pictures of tourist attractions (23), spa services (25), recreation services (14, 25, 30), visa information (16, 27, 30, 45), travel packages (24), and food services (14, 16, 23).

## **Discussion**

Before taking the medical travel, patients need to make decisions regarding the country they wish to travel as well as the hospital (s) and the physician (s) that they need to choose (39). For these reasons, patients need to access a variety of reliable information. Medical tourism websites are key information resources which can support patients with their decisions throughout their travel.

General information mostly entails subgroups dealing with financial information, insurance and contact information of the medical centers. According to previous studies (7, 8), a reasonable cost of the medical services and acceptance of international insurances in the targeted countries are considered as competitive advantages affecting patients' decisions regarding choosing a given country for their medical travel (46). Medical tourism websites use different strategies for sharing expense-related information. Some websites, for instance, tackle the issue by comparing expenses in different countries or discussing the follow-up expenses and money remittances (18, 39).

However, the patients' need to consider the aggregated expenses incurred as a result of the medical travel; including costs of medical care, transportation as well as accommodation for themselves and the adult companions, while taking into account the risks associated with medical errors, failure to get the desired results or, the worst-case scenarios, contracting diseases in the target countries. Patients also need to make sure about the stability of prices in the target countries. In line with other studies (37), the expenses and tariffs are clearly announced and presented on medical tourism websites and publicized by authorized organizations, and the government needs to oversee this process.

Another sub-category of general information dealt with the contact information of the medical centers which facilitates communication between the patients and the providers of medical services. According to the findings, the general information provided on medical tourism websites could be useful for medical tourists. This is supported by other studies placing a great deal of emphasis on general information and contact information. Contact information is crucial from the initial consultation until receiving treatment and ultimately the follow-up care (35).

Regarding the medical information, the highest importance is pertinent to the quality of medical services, while the sub-category of risks, regulations and laws appears to be of less importance. The review of the relevant literature suggests that medical tourism websites mainly provide information related to the quality of services provided by medical centers (8, 36). The quality of medical services depends on (47, 48), physicians' specialty and qualifications (24, 45), the qualifications of other clinicians (49), the availability of follow-up care, previous patients' experience (50), and the deployment of advanced technologies and equipment. Gaining recognition by accreditation and standard organizations such as JCI and ISO could also reflect the quality of medical services and could affect choosing medical centers by medical tourists (47, 48). According to the findings of the current study, medical tourism websites could provide information about the accreditation certificates granted to medical centers. A reason for providing such information on medical tourism websites could be the difficulty of making judgments about the quality of medical services by patients or their families (24, 45). International accreditation recognized as the sign of guaranteed quality reflects the capabilities of organizations in providing acceptable services (51). In other words, the existence of information about international accreditation on medical tourism websites could help patients to make sure about the quality of services delivered by medical centers. Furthermore, information about the accreditation ranks, the level of collaboration with other reputable hospitals and the number of phy-

sicians graduated from well-known medical universities must be taken into consideration while determining the level of service quality (18). Each of these information elements could promote a country's medical tourism as a trademark.

The possibility of communication with previous patients or patients with similar medical conditions on medical tourism websites is important and could also influence patients decisions about choosing medical centers through sharing experiences and ideas (50). Patients' satisfaction with medical services could help developing a positive view of medical centers and their physicians, and this, in turn, could influence patients' choice. In the United States, one-sixth of citizens in this country use the reports of patients' experiences for choosing physicians and one-seventh of them use such reports for choosing hospitals (50). Therefore, hospitals and medical tourism facilitator companies are recommended to publish trustworthy information about patients' experiences, and satisfaction with, medical services, while maintaining patients' privacy and confidentiality of information.

Patients require information on risks associated with medical tourism if they are to make informed decisions. However, the findings of the current study indicated that medical tourism websites tend to address risks on a smaller scale because of the presumed impact of positive promotional messages on patients. Hence they are more focused on the benefits of medical tourism rather than its associated risks (18). Moreover, the results of this study showed that little information about legal policies and medical ethics of destination countries has been shared on medical tourism websites. This is in with studies that reported similar results (18, 31).

In relation to tourism information, a great emphasis has been placed on sharing information about transportation, accommodation, visa and interpretation services (23) while paying little attention to accommodation services close to the medical centers. Both the quality of services and the cost of services are of particular importance when patients make their choice. Therefore, the patients should be provided with information

about alternative types of accommodation that suit with their expectations, especially when the cost of accommodation in hotels is high compared to the quality of services.

## Conclusion

Growing popularity has recently been gained by medical tourism as patients have been receiving their needed medical treatment with reduced waiting times and expenses. To arrange their care and travel, patients need reliable sources of information on which medical tourism websites have a pivotal role to play. Improving the information content of the websites considering the information that patients need to make their informed choice could help patients to have a better experience of their medical travel.

## Ethical considerations

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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## Conflict of interest

None declared.

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