Continuity of care in the cross-border context: insights from a survey of German patients treated abroad

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Background: Continuity of care is important for outcomes and patient satisfaction and includes additional considerations in the context of cross-border healthcare. Although this has been discussed in research and was picked up in the recently transposed Directive on patients’ rights (2011/24/EU), there is limited evidence about related issues actually encountered by patients crossing borders. Methods: An anonymous postal survey was carried out by the Techniker Krankenkasse, one of the largest sickness funds in Germany. The questionnaire was sent to 45,189 individuals who had received treatment in EU/EEA countries and included items on relational, management, and informational continuity. Results: The survey had a response rate of 41% (n = 17,543). Of those respondents who had travelled for care (n = 3,307), ~19% (n = 570) did so due to a relationship of trust with a given provider. Only 8% of all respondents required emergency follow-up services due to complications, the majority of which was obtained back in Germany. Twelve percentage of those who were prescribed medication abroad (n = 4,208) reported problems, spanning unknown products, dispensation and reimbursement. Communication exchange between providers across borders was rare and largely carried out by the patients themselves. Conclusions: Although relational continuity may be important to specific groups of patients travelling for care, it is primarily informational continuity and its interrelation with management continuity that need to be addressed in the cross-border context. Information exchange should be endorsed at European level. Additional focus is required on informing patients about documentation rights and requirements and providing health records that are comprehensive and comprehensible.

Introduction

Continuity of care has been defined as ‘the extent to which a series of health care services is connected and coherent and is consistent with a patient’s health needs and personal circumstances’. Continuity is recognized as an important component of quality care, both in terms of patient outcomes and satisfaction. Its most widely used operationalization distinguishes three types of continuity (Box 1) that can be more or less applicable or emphasized in different care settings. In response to the problem of fragmentation in health service provision, there has been increasing focus on continuity of care and related concepts, such as care coordination, integrated care or patient-centred care. Additional challenges arise with respect to all three continuity types: treating clinicians are unlikely to establish a high level of familiarity with cross-border patients, a uniform approach to treatment is harder to achieve in the face of separate guidelines and available health technologies such as pharmaceuticals, and information flows are further hampered by complicated provider communication, language barriers as well as different documentation types and IT applications. In fact, in a study exploring potential risks arising for medical tourists and their ethical and legal implications, Crooks et al. identified complications requiring follow-up care, discontinuity of medical documentation and uninformed decision-making as three of the main health and safety risks characterizing planned care abroad.

The transposition period of Directive 2011/24/EU on the application of patients’ rights in cross-border healthcare ended in October 2013. The Directive makes explicit mention of continuity of care in relation to two topics: information exchange, be it in the form of medical records (Art. 4.2(f); Rec. 25) or e-Health (Art. 14.2) and the recognition of prescriptions (Art. 11.1). It further supports multilevel, supranational collaboration to develop ‘practical mechanisms to ensure continuity of care’ (Rec. 50), although the nature of such mechanisms is not described in detail. Furthermore, the Directive makes provisions that are related to the risks of care fragmentation without explicitly linking them to continuity: Article 5(c) on the responsibilities of a patient’s Member State (MS) of affiliation stipulates that patients who received services abroad are entitled to the same necessary follow up as those treated in the home system; the concept of mutual assistance and collaboration, which underpins the Directive as a whole, extends to the ‘cooperation on standards and guidelines on quality and safety’ (Art. 10.1) and the assessment of health technologies (Art. 15). The definition and content of quality and safety standards as well as the exact outline of e-Health solutions are not set out in a binding manner but are largely left to the cooperation between MS.

The concept of continuity of care is by definition connected to the patient experience (however, some of the numerous instruments developed to measure continuity of care use provider input). Although some aspects of continuity may be only perceived indirectly when shortcomings occur (‘discontinuity’), other elements, such as personal self-responsibility and the key role of the clinician take a more active form. Both signs of discontinuity and issues related to the active facilitation of coherent and consistent care are interesting to explore in the cross-border care context. Existing evidence on the matter is very limited, particularly from the patient perspective. The Europabefragung 2012 is part of a series of surveys carried out on a regular basis by the Techniker Krankenkasse (TK), as of January 2014 the largest sickness fund in Germany. The anonymous survey series aims to provide the necessary information for the sickness fund to ensure that its services correspond to the needs of those it insures. The 2012 iteration of
the survey questionnaire was slightly modified to include a number of items investigating issues related to continuity of care among patients who had obtained services in other European countries.

**Methods**

Efforts were undertaken to identify all individuals insured by the TK who had been treated in European Union/European Economic Area (EU/EEA) countries, and whose reimbursement was administered by the fund in 2010. Excluded were: (i) identified individuals who had a data confidentiality clause, (ii) TK employees, (iii) persons under legal guardianship, (iv) persons residing permanently abroad, (v) persons who had in the meantime terminated their fund membership or had their entitlement to services suspended, (vi) persons with some level of long-term dependency or in hospice care, (vii) children below the age of 18, (viii) insured who had been surveyed for different reasons in the previous 180 days or had requested not to be included in surveys at all. Thus, the final sample was not based on explicit power calculations, and questionnaires were sent by mail to 45,189 individuals. The questionnaires were sent out in early 2012, collection was finalized in May of the same year and the anonymized data was then coded.

The questionnaire was based on those used for the previous iterations of the *Europaerfragung* and was further developed to encompass a more pronounced focus on patient satisfaction and continuity of care. It comprised 40 questions including yes/no, multiple choice and Likert scale options as well as an open question for further comments at the end. A separate section of the questionnaire, to be filled out only by respondents who had received planned care, comprised a set of questions on informed choice. The instrument was pre-tested by 29 participants before being dispatched.

In regard to continuity of care, the survey aimed to gain insight into issues related to all three types mentioned in Box 1. The general underlying assumption was that continuity types will have varying relevance depending on type of patient and services obtained (see, for example, Glinos et al.18 for a typology of cross-border patients). As a result, an additional focus was placed on differences between respondents who had deliberately travelled for care and those who required unplanned services while abroad, as these differences may be relevant for policy and practice recommendations. The operationalization of all research questions, as well as the specific methods chosen in each case, are outlined in Box 2.

Data from the survey were analysed using Statistical Package for the Social Sciences (SPSS) Statistics 20.0. Where more than one response was allowed in the questionnaire, multiple response sets were defined and analysed using cross-tabulation. Descriptive statistics are illustrated by means of frequencies. Reported percentages are valid percentages, and the absolute number of valid responses is understood as ‘all respondents’ and provided in parentheses. Associations between groups were explored by means of cross-tabulation. The test of significance was, unless otherwise stated, the chi-square test (c2) with 0 = no difference between groups. The t test for independent samples was used for continuous variables. If the assumptions for the t test were violated, the non-parametric Mann-Whitney U test was used. Differences were considered statistically significant if p < 0.05. Where appropriate, 95% confidence intervals are reported.

**Box 1 Types of continuity**

| Relational continuity—an ongoing therapeutic relationship between a patient and one or more clinicians; the accumulating knowledge of the patient helps clinicians bridge episodes of care and ensure coherence |
| Management continuity—a consistent and coherent management of a given condition that is responsive to a patient’s changing needs; coordinated and timely delivery of complementary services when multiple clinicians are involved |
| Informational continuity—the use of (formally recorded) information on past events and/or circumstances; facilitation of appropriate current care through increased coherence |

Adapted from Refs. [1, 6, 7]

**Box 2 Operationalization of research questions and hypotheses**

**Relational continuity**

(a) How many respondents travelled due to a trust relationship with a given provider abroad (multiple response element: ‘what made you decide to receive your last treatment abroad?’; response option ‘trust relationship with a given physician/provider abroad?’)—descriptive statistics

(b) Is there a difference between those respondents and those who deliberately travelled for services motivated by other factors regarding patient type (regularity of treatment, distance of residence from border) and services obtained (type of provider and whether or not providers are directly contracted by the TK)?—chi-square test of independence (h0 = no difference between groups) in all cases

(c) Are those respondents more likely to repeat travel for services abroad than those not motivated by trust relationship?—chi-square test of independence (h0 = no difference between groups)

**Management continuity**

(a) Is the proportion of respondents who required planned or emergency follow-up the same for unplanned and planned care received abroad?—chi-square test of independence (h0 = no difference between groups)

(b) Is the proportion of follow-up provided abroad/at home different for planned and unplanned care?—chi-square test of independence (h0 = no difference between groups)

(c) How common were problems with medications provided abroad?—descriptive statistics

(d) What were the main issues faced? Are these problems more common among unplanned/planned care recipients?—multiple response set, descriptive statistics

(e) Do the need for emergency follow-up or problems with medications impact willingness to travel again?—chi-square test of independence (h0 = no difference in likelihood to repeat travel abroad)

**Informational continuity**

(a) Was information exchanged between providers in the country of treatment and at home?—descriptive statistics

(b) Does the frequency of information exchange vary by type of treatment (planned/unplanned)?—chi-square test of independence (h0 = no difference between groups)

(c) Does the frequency of information exchange type of provider where treatment was obtained?—chi-square test of independence (h0 = no difference between groups)

(d) Are planned care recipients more likely to know whether treatment was exchanged?—chi-square test of independence (h0 = no difference between groups)

(e) When was information exchanged, which medium was used?—descriptive statistics

(f) Is there a difference in mode of communication between planned and unplanned cases?—chi-square test of independence (h0 = no difference between groups)

(g) Would respondents have wished for more communication between providers?—descriptive statistics

(h) Is there a difference between planned and unplanned regarding the wish for more communication?—chi-square test of independence (h0 = no difference between groups)

(i) Does information exchange itself or the wish for more information impact willingness to travel again for services?—chi-square test of independence (h0 = no difference between groups)

(j) What are respondents’ views on data confidentiality and the potential benefits of an information network?—descriptive statistics
Results

Response rate and characteristics of participants

Eighteen thousand three hundred thirty-nine questionnaires were returned to the TK, amounting to a response rate of 41%. A total of 796 questionnaires were excluded due to either invalid responses to the question on the planned or unplanned nature of services received or the fact that participants were underage. Thus, the responses of 17,543 participants were available for analysis. Of these, 14,236 (81%) reported requiring unplanned treatment while abroad compared with 3307 (19%) who travelled with the purpose of obtaining services. The sample was balanced in terms of gender (F/M 52%/48%), with an average age of 57.2 years and a higher representation of the age groups 70–79 (24.7%) and 60–69 (21.8%). Pensioners formed the largest group of respondents (44.3%), followed by salaried employees (31.0%). The gender ratio was identical to that of the full sample selected for the survey, but respondents were on average 6.7 years older than the full sample average (50.5 years).

Relational continuity

Approximately 19% of respondents who travelled to obtain health services indicated that they did so due to a relationship of trust with a given provider abroad, while the most frequent reason for travelling was good past experience with cross-border services (46%), followed by the possibility of combining treatment with vacation and cost-saving opportunities compared with the MS of affiliation, each 42%. Table 1 shows that a relational aspect to patients’ motivation for seeking care abroad may be related to regularity of cross-border movement, proximity of residence to the border and type of provider where care was obtained, whereas it does not seem to be connected to visiting providers abroad who are contracted by the sickness fund in the home system. Furthermore, more respondents who were motivated by a trust relationship are likely to repeat health care abroad compared with those with other types of motivation (although willingness to repeat travel is generally high).

Management continuity

Follow-up care

Out of all respondents who reported on follow up after services received abroad (n = 16,593), 61% reported not requiring any, while 31% had some follow up already planned during their initial visit and only 8% had to receive emergency services due to complications. The proportion of respondents who required follow up due to complications after unplanned care (10%) was higher than for those who received planned services (2%) [x² (2, n = 16,593) = 218.4; P < 0.001]. Adjusted standardized residuals indicated that the nature of care (planned or unplanned) was not related to follow up that had already been scheduled during the patient’s initial visit.

Of those respondents who required emergency follow up (n = 1341), the majority indicated that this was carried out exclusively by a physician in Germany (93% for unplanned and 68% for planned cases). Follow up by the same provider abroad was more common among patients who travelled for services (19%) compared with those requiring unplanned care (3%). Similarly, 6% of planned cases received follow-up services from a different provider abroad, compared with 2% of unplanned cases. Finally, only few patients required follow up by more than one provider, at home and/or abroad. Although the differences between planned and unplanned care recipients appeared statistically significant for follow-up obtained by providers in Germany or the same provider abroad, a number of cells had a value lower than five during cross-tabulation; the chi-square test is therefore not reported here.

Medications prescribed abroad

Approximately 25% of respondents (n = 4208) reported being prescribed medication in the MS of treatment which they were to continue taking at home (28% among those requiring unplanned services and 11% among planned cases). Of those who had been prescribed such medication, 12% (n = 453) indicated encountering some type of problem. In that subsample, problems occurred twice as frequently among those who had travelled for care (20%) compared with those who had required unplanned services (10%). The main problems reported are shown in table 2.

Chi-square tests of independence were significant unless otherwise indicated (*). Bolded numbers indicate which cells contributed the most to the test value for provider type.
to pay for the medication they received abroad despite being exempt from co-payment in Germany, being given a medication abroad over the counter which was prescription-only in Germany, having to change to a generic once they were back in the home system; and difficulties with understanding package inserts that were only in the language of the MS of treatment.

Among respondents who had travelled with the purpose of obtaining services, a significantly higher proportion of those who had required emergency follow-up declared that they would not be resuming planned care abroad (26%) compared with those who had no such wish (13%) or had not (14%) [x² (2, n = 14 640) = 53.8; P < 0.001]. Problems with prescribed medication did not seem to have the same level of influence [FET; P = 0.098].

### Informational continuity

#### Information exchange between providers

Approximately 80% of all respondents indicated that no information exchange took place between their treating clinician abroad and their doctor back home. A further 3% was not aware if such an exchange had taken place. The proportion of cases where information was exchanged was significantly larger for patients who had obtained planned care (21%) compared with those who had required unplanned services (16%) [x² (2, n = 16 436) = 41.5; P < 0.01]. As indicated by adjusted standardized residuals during the same test, there appeared to be no relation between the planned or unplanned nature of cross-border treatment and whether respondents knew if an exchange had taken place.

Broken down by the type of provider where care was obtained, hospitals were most frequently in touch with physicians back home, an exchange had taken place. Among those who indicated that information had been exchanged [FET; P < 0.001]. Problems with prescribed medication did not seem to have the same level of influence [FET; P = 0.098].

#### Table 2 Issues with medications prescribed abroad

<table>
<thead>
<tr>
<th>Type of problem</th>
<th>Planned (n = 69) (%)</th>
<th>Unplanned (n = 374) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>– Different medication than the one usually prescribed at home</td>
<td>45</td>
<td>56</td>
</tr>
<tr>
<td>– Prescribed medication not available in Germany</td>
<td>51</td>
<td>20</td>
</tr>
<tr>
<td>– Difficulty filling foreign prescription in Germany</td>
<td>19</td>
<td>6</td>
</tr>
<tr>
<td>– Other problems</td>
<td>26</td>
<td>31</td>
</tr>
</tbody>
</table>

#### Table 3 Percentages of cases on information exchange broken down by provider type in MS of treatment and nature of visit (planned—P/unplanned—U)

<table>
<thead>
<tr>
<th>Did information exchange take place?</th>
<th>No (P/U) (%)</th>
<th>Yes (P/U) (%)</th>
<th>Unclear (P/U) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital (outpatient)</td>
<td>49/76</td>
<td>45/20</td>
<td>5*/4</td>
</tr>
<tr>
<td>Hospital (inpatient)</td>
<td>41/50</td>
<td>53/45</td>
<td>6*/6</td>
</tr>
<tr>
<td>Balneotherapy (outpatient)</td>
<td>85/84*</td>
<td>13/12*</td>
<td>2*/4*</td>
</tr>
<tr>
<td>Balneotherapy (inpatient)</td>
<td>80/82*</td>
<td>18/15*</td>
<td>2*/3*</td>
</tr>
<tr>
<td>Dentist</td>
<td>92/90</td>
<td>6/8</td>
<td>2*/2</td>
</tr>
<tr>
<td>GP practice</td>
<td>80*/90</td>
<td>15*/7</td>
<td>6*/3</td>
</tr>
<tr>
<td>Specialist practice</td>
<td>59/80*</td>
<td>34/18*</td>
<td>7*/3</td>
</tr>
</tbody>
</table>

Asterisks indicate which cells did not contribute to the test value for the chi-square test of independence, which was overall significant (conclusions based on adjusted standardized residuals).

#### Table 4 Percentages of responses on data safety, availability and usefulness

<table>
<thead>
<tr>
<th></th>
<th>Fully agree (%)</th>
<th>Mostly agree (%)</th>
<th>Mostly disagree (%)</th>
<th>Disagree (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The strictly confidential nature of my health data is important to me</td>
<td>77</td>
<td>17</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>My health data is safe in Germany</td>
<td>31</td>
<td>45</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>My health data is safe abroad</td>
<td>25</td>
<td>46</td>
<td>24</td>
<td>6</td>
</tr>
<tr>
<td>Doctors should be connected by a EU-wide electronic network in order to be able to access my health data for treatment</td>
<td>42</td>
<td>27</td>
<td>18</td>
<td>13</td>
</tr>
<tr>
<td>If doctors abroad had access to my health data in Germany, treatment quality would be improved</td>
<td>38</td>
<td>31</td>
<td>20</td>
<td>12</td>
</tr>
</tbody>
</table>

#### Questions of data safety and availability

The survey also included questions regarding data safety and access at national and European level (see table 4). Seventy-seven percent of respondents were in full agreement on the importance of confidentiality regarding health data. The same level of confidence was not visible with regard to data safety at home or abroad or for the application of an EU-wide network to enable data accessibility for
cross-border purposes. However, the majority of respondents replied positively (with fully or mostly agree) to all statements.

Discussion

Although the issue of continuity in cross-border health care movements has been discussed in research and was picked up in the recently transposed Directive on patients' rights (2011/24/EU), not much is known about actual continuity problems encountered by these patients or factors that may influence them. The Europabefragung 2012 aimed to identify such issues across continuity types and provide an initial insight into contextualizing factors. With regard to relational continuity, ~20% of patients who travelled to obtain services were motivated by a relationship of trust with a given provider; compared with all patients who sought planned care, they were more frequently residents of border regions and treated regularly, especially for dental care. Respondents who were motivated by a trust relationship were also more definitively positive about returning for cross-border care in the future. Ten percent of unplanned cases required emergency follow up due to complications, compared with 2% of planned cases. Although this difference is statistically significant, it needs to be interpreted along with the spectrum of conditions for which patients seek planned and unplanned care abroad. In our sample, the former largely made use of balneotherapy or dental services, which are by nature less likely to involve complications requiring follow-up care. The vast majority of such follow up among unplanned cases was carried out by providers back in Germany, which was also the case for 68% of planned care recipients. A range of problems with medications prescribed abroad was identified, but these were not very common overall and did not seem to influence patients' preparedness to repeat planned care abroad. Information exchange between providers in the MS of treatment, and MS of affiliation was not common (21% among planned cases and 16% among unplanned cases) and was usually carried out through the patients themselves. Only 14% or respondents overall indicated that they would have wished for more communication between providers. Although they were largely in agreement on the importance of data confidentiality and the potential of such data in optimizing health care provision abroad, confidence in data safety was more moderate.

The main strength of our study lies with the unique opportunity to explore continuity-related issues encountered by a large number of cross-border care recipients in a manner that is both indicative of quantitative trends and allows for insights into the patient perspective. Although there is an increasing body of research focusing on continuity issues for transitions across providers and/or settings within a given system and the particularities of cross-border care provision in this respect are both known and discussed, empirical research in the supranational context is not widely available. Furthermore, the composition of our sample allowed for inquiries into situations requiring unplanned services abroad and planned care as well as comparisons between the two modalities. This is especially important with regard to policy-making, as different approaches may be required or intermediaries be employed based on type of care. At the same time, the survey did not aspire to capture all types and dimensions of continuity and was not designed with the usual measurement properties in mind, but rather aimed to incorporate an exploration of continuity-related considerations into a broader topic. Thus, the elements addressed do not strictly correspond to existing research on continuity within the same system. A number of interesting and important issues were beyond the scope of this article both in relation to continuity (e.g. multimorbidity, socio-demographic factors) as well as other safety concerns with regard to cross-border care provision (e.g. transportation of microorganisms, uninformed decision-making). Although the response rate (41%) is not particularly high, it falls within the spectrum of reported response rates in mailed surveys in health care. The tendency of older persons to respond to mailed surveys has been observed in the past, and in this survey, respondents were on average 6.7 years older than the overall sample who received the questionnaire. Thus, there was a higher representation of older patients leading to a more frequent utilization of certain types of services. Finally, caution is necessary with regard to transferability of findings in regard to two aspects: while the issues addressed are not necessarily country-specific, destination countries may vary and characteristics of the German system may further influence the types of services patients received abroad; furthermore, whether the collective of patients insured by the TK is representative for the German insured population is not unequivocal and needs to be taken into account.

Given the general lack of similar studies in the published literature it is challenging to contextualize our findings in a comparative manner. However, insights from studies on continuity of care within the same system can also be applicable to the cross-border setting. Regarding relational continuity, Waibel et al. observed that an established relationship with a provider was more important for chronic patients but was balanced out by easier access for others. We found an increased representation of patients regularly treated abroad and residing in border regions among those who were motivated to seek care abroad by a relationship of trust with specific providers. Relational continuity in the cross-border setting is in all likelihood mostly applicable to a more limited range of services, for example in the context of dental care or long-term balneotherapy regimens.

Management continuity is perhaps equally difficult to conceptualize for movements across borders. We found that the majority of patients who required emergency follow up due to complications was treated by a provider in the MS of affiliation; Directive 2011/24/ EU stipulates that MS are mandated to provide the same follow up to patients whose initial care was received abroad, but Crooks et al. remark that patients who have opted for such care may be embarrassed and therefore reluctant to seek out their providers upon return. This can delay follow-up care, entail risks for the patient and incur more costs for the health system. For planned care abroad, Turner suggests that where accredited medical tourism agencies are involved, they should be tasked as mediators to ensure that patients have access to local follow-up care. However, such agencies are not equally common in all countries; actors who could potentially act as connection points in the context of continuity will conceivably differ based on system characteristics. Furthermore, management continuity would go beyond whether follow-up care was available to include a consistent treatment across settings. The Directive calls for the development of joint safety and quality standards and mechanisms that facilitate coherent patient care, the European Patients Forum urged that patients participate actively in their development as well as in conceptualizing how to inform patients regarding cross-border prescriptions. Respondents to our survey identified a number of issues with medicines prescribed abroad on which detailed guidance is not readily available, most notably being prescribed a different medication or not having access to the prescribed medication in their home system. Although problems with prescriptions were rare in our sample, San Miguel et al. point out that room for improvement exists concerning dispensing processes and patient safety.

A crucial issue highlighted by our findings, which is equally important for management and informational continuity, is the low proportion of information exchanged between providers, especially in conjunction with the fact that, when available, information exchange was primarily realized by the patients themselves. Directive 2011/24/EU mandates that all patients have a right to documentation on the services they have received in the form of an electronic medical record (Art. 4.2.f). Although the importance of such records is not contested, a simulation of the Directive carried out in 2011 found
that the provision would be difficult to realize in practice.\textsuperscript{26} Furthermore, the format and content of existing documents across European countries was found to vary substantially.\textsuperscript{27} Respondents to the survey seemed to be in overall, if tentative, agreement that providers should have access to an information network at European level in order to provide appropriate care; however, there were indications that their confidence in data safety was not unequivocal. Although e-Health is endorsed in the Directive, clarifying the specifics of data access and interoperability is one of the suggested areas of collaboration among MS.\textsuperscript{14} Patient confidence on what data is to be made available, when, how and to whom is therefore important.\textsuperscript{8,12,24}  

Our findings indicate that while relational continuity may be important to specific groups of patients travelling for care, it is mainly informational continuity and its interrelation with management continuity that need to be primarily addressed in the cross-border context. The exchange of information should be endorsed at European level. Additional focus is required on informing patients about documentation rights and requirements; providing health records for patients that are comprehensive and comprehensible; encouraging providers in the MS of treatment and affiliation to take initiative on information exchange and ensuring that information on specific elements of care, be it in discharge documents or medication leaflets, is adapted regarding language with the potential of cross-border care in mind.

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Conflicts of interest: None declared.

Key points

- Empirical research on continuity in the cross-border setting is limited;
- The majority of emergency follow-up care is carried out in the MS of affiliation. This is an additional argument in favour of a more concerted effort towards adequate and comprehensible medical records;
- Exchange of information between providers should be endorsed at European level;
- Increased confidence in data safety should precede the implementation of wide network applications.

References

What determines frequent attendance at out-of-hours primary care services?

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Background: A detailed description of the characteristics of frequent attenders (FAs) at primary care services is needed to devise measures to contain the phenomenon. The aim of this population-registry-based research was to sketch an overall picture of the determinants of frequent attendance at out-of-hours (OOH) services, considering patients’ clinical conditions and socio-demographic features, and whether the way patients’ general practitioners (GPs) were organized influenced their likelihood of being FAs. Methods: This study was a retrospective cohort study on electronic population-based records. The dataset included all OOH primary care service contacts from 1 January to 31 December 2011, linked with the mortality registry and with patients’ exemption from health care charges. A FA was defined as a patient who contacted the service three or more times in 12 months. A logistic regression model was constructed to identify independent variables associated with this outcome. Results: Multivariate analysis showed that not only frailty and clinical variables such as psychiatric disease are associated with FA status, but also socio-demographic variables such as sex, age and income level. Alongside other environmental factors, the GP’s gender and mode of collaboration in the provision of health services were also associated with OOH FA. Conclusion: Our study demonstrates that the determinants of OOH FA include not only patients’ clinical conditions, but also several socio-economic characteristics (including income level) and their GPs’ organizational format.

Background

It is estimated that ~80% of a general practitioner’s clinical work is spent on 20% of his/her patients, and that between one in six and one in seven consultations are with the top 3% of attenders. Smith even estimated that frequent attenders (FAs) account for 39% of all face-to-face consultations with their general practitioners (GPs). The analysis of FAs in general practice, with particular attention to GPs’ daytime activity, has been the object of many studies, as needed to develop action to contain the phenomenon. The aim of this population-registry-based research was to identify independent variables associated with this outcome. Results: Multivariate analysis showed that not only frailty and clinical variables such as psychiatric disease are associated with FA status, but also socio-demographic variables such as sex, age and income level. Alongside other environmental factors, the GP’s gender and mode of collaboration in the provision of health services were also associated with OOH FA. Conclusion: Our study demonstrates that the determinants of OOH FA include not only patients’ clinical conditions, but also several socio-economic characteristics (including income level) and their GPs’ organizational format.