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Cross-border health care in the European Union: evaluation of different financing arrangements

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ABSTRACT

This paper analyses the impact of the financing arrangements for planned cross-border health care within the European Union. A financial arrangement is taken to provide a financial incentive but may also involve payment risks and administrative burden. For the pathways given by the Social Security Regulations (883/2004 and 987/2009) and the EU Directive 2011/24/EU, we investigate how the associated financial arrangements act on providers, patients and on publicly funded health insurance. First, the Regulations can induce cross-border health care that will increase domestic health care expenditure and may threaten national health policy by setting an incentive for patients to go abroad for health care not covered by domestic health insurance. Second, the financial arrangement of the Directive may induce cross-border health care which will lower domestic health care expenditure. However, due to considerable payment risks and administrative burden on both pa-tients and providers, these benefits will not be reaped in full. Moreover, in the presence of national cost containment policies, the Directive may provide an incentive for cross-border health care that is too strong. Finally, due to the requirement to pay upfront, the financial arrangement also suffers from a lack of equity of access to health care provision abroad.

KEY WORDS

financing arrangement, cross-border health care, national health policy

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Introduction

In recent years, the European Union (EU) has been in the news primarily because of problems that appear to question the value of this alliance of states at least for some of its members. E.g., in 2016 the British people voted to leave the EU ("Brexit"). Even though the result came about with only a small margin, it is possible that other Member States may be tempted to follow this route. Furthermore, some member states of the EU currency union, most notably Greece, have been or still are suffering from problems of fiscal sustainability to such an extent that substantial financial assistance is necessary to prevent fiscal insolvency. Thus, eventually Greece or other Member States may choose or even have to leave the EU currency union.

While these problems undoubtedly exist, they should not distract from the fact that the EU has been quite successful in several ways which is indicated by the steady increase in membership over the last decades. A good example is given by the European Single Market which is associated with the "four fundamental freedoms". More specifically, these comprise the free movement of goods (e.g., medicinal products), the freedom to move for workers (e.g., health care providers), the freedom to establish and provide services (e.g., health insurance) and full capital mobility (e.g., investment in health care infrastructure). These freedoms act to promote trade in goods and services to enhance the welfare of citizens in the EU Member States.

Applying this line of reasoning to health care, one would, therefore, expect cross-border health care to occur on a substantial scale within the EU. Confining attention to patient flows, this would imply patients going abroad to obtain care of a higher quality, or to skip national waiting lists, or to incur lower costs. At first blush, it is not difficult to find evidence of such flows, e.g., German patients travelling to Poland or some other Eastern European Member State for dentistry or dentures, or patients from Poland going to Czechia for cataract surgery. In fact, turning to the case of the United Kingdom (UK) where health care provision has been notorious for long waiting lists, it is easy to find media reports with country-specific recommendations as to where patients from the UK may receive health care without delay and at a considerably lower cost than at home.

Nevertheless, the available empirical evidence clearly shows that, for the large majority of Member States, cross-border health care currently constitutes a rather limited phenomenon (European Commission, 2015b; European Commission, 2016). Given that, as described below, patients' entitlements have been enhanced recently, the small scale of patient flows across borders within the EU is even more surprising. Indeed, health care provision and financing differ substantially among the EU Member States and, since the Treaty on the Functioning of the European Union acknowledges the right of each Member State to organise its own health care system, these differences can be expected to persist. In turn, this implies that cross-border health care may offer considerable benefits (Ried & Marschall, 2016). On the other hand, several barriers can be identified which inhibit patient flows across national borders. Moreover, if a significant number of patients were to go abroad for health care in a Member State, this would pose a threat to the viability of the health care system in that state. Finally, access to health care in another Member State will differ across patient groups. Thus, cross-border health care involves difficult issues relating to the trade-off between equity and efficiency which may call for a restrictive approach.

In the present paper, we take up these issues with respect to the financing arrangements of cross-border health care within the EU. Since the bulk of health care typically is financed by a third party, a financing arrangement has an effect not only on patients and providers but also on health insurance funds or, alternatively, on a national health service. More precisely, attention will be confined to the case of planned health care as this involves, at least in principle, an element of choice by the patient which may be influenced by, e.g., the size of his copayment. Essentially, there are two pathways to cross-border health care in the EU at the moment. For each pathway, we will investigate the impact of financing arrangements upon the patient, the providers, and upon the health insurance funds or the national health system. Our objective is to work out the associated incentives for these actors to examine to what extent the financial arrangement may act to promote cross-border health care. Building on these results, we will also look briefly at feedback effects upon national health policy, with particular attention on cost containment policies.

The plan of the paper is as follows. Section 1 prepares the ground by exposing the two principal financing arrangements which are available in the EU. In section 2, we evaluate the impact of these arrangements upon the main actors. Section 3 contains a discussion of our results while we offer our conclusions in the final section.

1. Financing arrangements for cross-border health care: the case of planned health care

In general, cross-border health care denotes a broad concept which includes every transaction with either a patient, a service, or a provider moving across national boundaries (Wismar et al., 2011, p. 2). As mentioned above, our analysis will be confined to patients of an EU Member State who consider going to another Member State to receive health care. More specifically, we shall assume public funding, i.e., we

take the patient to be covered either by statutory health insurance (SHI), e.g., as in Germany, or by a national health fund (NHF), e.g., as in Poland. While this imposes some restriction, the case of public funding involves no substantial loss of generality because only a minority of individuals in the EU has private health insurance. In addition, coverage by SHI or NHF patients is more interesting as it has more implications for national health policy.

Let us briefly look at the two types of health insurance underlying our analysis of cross-border health care. As a benchmark, we will rely on the associated financing arrangements for domestic patients. Characteristically, statutory health insurance is financed by contributions levied upon individual income or upon parts thereof. Due to competition among SHI funds, coverage of health care is based upon membership. Thus, an individual will typically be able to prove to providers that he/she is entitled to receive health care covered by his SHI fund, e.g., by means of a health insurance card.

As for the provision and financing of health care, consider a patient who receives health care which is covered by his health insurance. If SHI is based entirely on the benefits-in-kind principle as, e.g., in Germany, the patient does not have to pay the provider except for a copayment (Busse & Blümel, 2014, pp. 140-157). Rather, the provider will obtain the remuneration directly from the SHI fund of the patient. On the other hand, in some Member States SHI is based to some extent on the cost reimbursement principle as in, e.g., France for outpatient care. Then, the patient must pay the provider upfront and then turn to his/her fund for restitution (Chevreul et al., 2015, p. 93). Nevertheless, even in this case some types of health care, e.g., hospital care, will be financed relying on benefits-in-kind. Hence, below we will focus on SHI based on the benefits-in-kind principle.

Things are somewhat different for a national health fund as the example of the National Health Service (NHS) in England shows. Essentially, the NHS is financed by general taxes and domestic patients are entitled to receive all health care covered by the NHS for free (Cylus et al., 2015, pp. 50-54). More generally, patients who are ordinarily resident in the UK are exempt from charges by the NHS (Department of Health, 2016, pp. 29-33). This implies that providers such as, e.g., GPs or hospitals, will get their services remunerated by the NHS according to the going tariff. Thus, the financing arrangement is broadly similar to the one for a SHI based on the benefits-in-kind principle. However, there is no established procedure for patients to prove that they are entitled to receive health care on behalf of the NHS simply because this is not necessary for ordinary residents of the UK.

Among overseas patients, there are several subgroups to which different rules of charging are to be applied. In principle, the NHS is responsible for identifying the rules applying to a particular patient and for taking steps which are necessary to recoup the associated cost of treatment. In line with this, providers are supposed to try to obtain that information and to report it whenever necessary (House of Commons, Committee of Public Accounts, 2017; Department of Health, 2016; Guidance or National Audit Office, 2016, p. 13). In theory, if providers fail to meet this requirement, they may not obtain remuneration for their services. In practice, however, there is no established procedure to deal with overseas patients as foreseen in the statutory provisions. Thus, if a provider does not identify an overseas patient, the services are very likely remunerated just like for an ordinary NHS patient.

In what follows, the term financial arrangement will be taken to refer to all financial aspects relating to the utilisation of cross-border health care by a patient who is covered by either SHI or NHF. In the first place, this includes payments by patients, remuneration of providers and reimbursement by SHI or NHF. For evaluation, however, it is useful to adopt a wider perspective. Hence, we will also consider further issues such as the availability of information on payments and any uncertainty that may be associated with these.

Essentially, for a patient there are two pathways to obtain planned health care in another EU Member State: the first is based upon Social Security Regulations, in particular on Regulation 883/2004 in conjunction with Regulation 987/2009, while the second relies on the EU Directive 2011/24/EU. Both pathways differ with respect to the entitlement to care, procedural issues and the financial arrangement. In line with the focus of our paper, we shall only touch upon the first two aspects and concentrate on the latter aspect. To fix ideas, suppose a patient from a Member State A (the Member State of affiliation) intends to obtain planned health care in some other Member State B (the Member State of treatment).

1.1. The Social Security Regulations route

Consider first the pathway given by the Social Security Relations. Basically, in this case, both coverage of treatment and financing follow the rules governing health care provision by SHI or NHF in the Member State of treatment. This implies two restrictions: First, the treatment must be part of the corresponding benefit package in state B, and, second, it must be performed by a provider under contract with SHI or NHF. Furthermore, to be able to embark on this pathway, the patient must obtain prior authorisation from his health fund at home, i.e., in the Member State of affiliation. More specifically, prior authorisation can be refused if the requested treatment either does not belong to the benefit package of the SHI fund or the NHF at home or when it is readily available there. On the other hand, if the treatment is included in the benefit package but cannot be obtained without undue delay in the Member State of affiliation, prior authorisation must be granted.

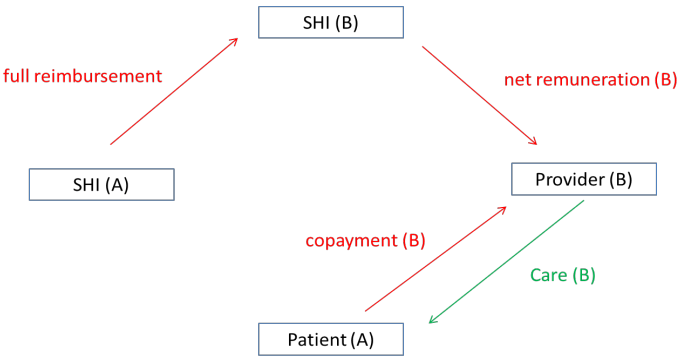

Fig. 1. Financing of cross-border health care — social security regulations

Turning to the financing arrangement, there is a considerable similarity with the financing arrangement associated with the provision of health care to a domestic patient covered by a public fund in Member State B. More precisely, this is true for the remuneration of providers, the copayment of the patient and the reimbursement by SHI or NHF of Member State A. More specifically, providers must apply the same tariff as for patients covered by SHI or NHF in Member State B. In the end, remuneration is split between the patient and his health fund in Member State A such that the patient must bear the same copayment as a domestic patient in Member State B. Technically, this is achieved by a specific form (S2) indicating to the provider that the patient is covered by SHI or NHF at home.

In what follows we will assume that SHI or NHF in Member State B relies on the benefits-in-kind principle to financing health care[1]. Whereas this is characteristic of an NHF, it is true for SHI in, e.g., Germany. Thus, whenever a patient utilises health care included in the benefit package, a SHI fund or the NHF of Member State B will directly remunerate the provider net of the copayment which is delivered by the patient. In effect, the public funder of Member State B acts as a financial intermediary who then has to turn to the patient's health fund in Member State A for reimbursement (Fig. 1). Without any loss of generality, we assume public funding to occur by SHI in both Member States.

It is possible that the cost to SHI or NHF in the Member State of affiliation is lower than the cost which would have arisen if the patient had been treated at home. Then, the patient may apply for additional reimbursement which will be granted at the discretion of a SHI fund or the NHF in the Member State of affiliation. In effect, while reducing the financial burden on the patient, this additional payment must not exceed the cost savings to SHI or NHF from cross-border health care.

1.2. The Directive route

Another pathway to cross-border health care is offered by the EU Directive 2011/24/EU which has been passed in 2011 and was to be transposed into national law by October 2013. More specifically, the Directive codifies, to a large extent, case law which had been established earlier in several rulings by the European Court of Justice. In this case, both coverage of treatment and financing follow the rules governing health care provision by SHI or NHF in Member State A, i.e., the Member State of affiliation. In particular, care obtained in another Member State B will be funded if it belongs to the benefit basket at home. With respect to providers, the Directive is less restrictive than the Regulations in that it also admits health care supplied by private providers. Furthermore, in general, no prior authorisation is necessary to be

[1] This involves a minor loss of generality as SHI a Member State may be based on the cost reimbursement prin-ciple for some types of health care. E.g., in France, SHI patients will be reimbursed for outpatient care (Chevreul et al., 2015, p. 93).

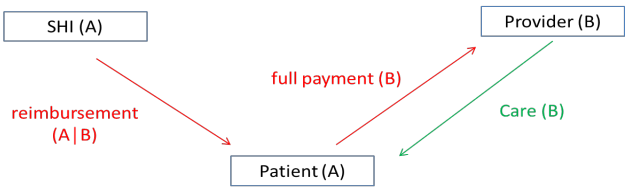

Fig. 2. Financing of cross-border health care — EU Directive

entitled to cross-border health care. This basic principle notwithstanding, a Member State may still introduce a system of prior authorisation. However, recognising that this impedes cross-border health care, the Directive imposes criteria which such a system must meet. First, prior authorisation must be confined to specific types of health care, most notably hospital care or care requiring the use of highly specialised medical equipment. Furthermore, prior authorisation should not be refused if the patient is entitled to that treatment but it cannot be provided at home within a time that is medically justifiable.

The financing arrangement is based upon cost reimbursement. That is, for a treatment received in Member State B, the patient from Member State A must pay upfront before turning to his SHI fund or the NHF at home for reimbursement. Furthermore, reimbursement by a SHI fund or the NHF will be up to the cost of that treatment at home, while not exceeding the actual cost to the patient. Fig. 2 exhibits the payments involved in the financing arrangement of the EU Directive. As the notation indicates, reimbursement of care obtained in Member State B is governed by the rules in Member State A.

It is possible that the requirements of both the Regulations and the Directive are satisfied. In particular, this refers to cases in which prior authorisation has been granted for a given treatment in another Member State. Then, the patient has a right to be informed about both pathways such that he/she may choose the one which to which pathway health care shall be financed (European Parliament and Council of the European Union, 2011).

A final remark on the Directive: The principle of non-discrimination implies that providers must not charge patients from another Member State in a manner that differs from charging domestic patients. However, as the analysis in the next section will show, this may still leave some scope with respect to the tariff that is to be applied. More specifically, this will be true whenever different tariffs exist such as, e.g., a tariff for SHI or NHF patients and another one for private patients.

As the baseline case for the evaluation of a financing arrangement, we will take the utilisation of health care by a domestic patient insured with either SHI or NHF. Essentially, our analysis relies on three criteria which are given by the pure financial incentive, the payment risk and the administrative burden. First, the pure financial incentive refers to the financial impact of a patient if the financing arrangement fully works as intended, i.e., neglecting any payment risk. E.g., a provider has a pure financial incentive to treat a cross-border patient if remuneration is higher than for a domestic patient who is similar to the patient from another Member State. However, the payment risk associated with financing cross-border health care also needs to be considered. Thus, the second criterion relates to the risk of payment delay or payment default, again in comparison with providing care to a domestic patient. Finally, a financial arrangement may impose an additional administrative burden. More specifically, this criterion relates to any administrative effort which must be undertaken to complete the financial transactions due to cross-border health care.

2. Impact analysis

In this section, we will analyse the financing arrangements associated with the two pathways to obtaining planned health care in another EU Member State. More specifically, our intention is to investigate the implications for providers, patients and SHI funds or the NHF. In each case, the benchmark is given by the corresponding transaction carried out on a purely national level. Essentially, a financing arrangement will be assessed with respect to the three criteria of pure financial incentive, financial risk and administrative burden.

2.1. Providers

Consider first the case of a patient who receives cross-border health care according to the Social Security Regulations. As mentioned in the previous section, a provider is obliged to apply the same tariff as for domestic SHI patients. More precisely, the provider is entitled to full remuneration according to

the tariff. At first sight, therefore, it seems that the pure financial incentive for a provider is no different from the incentive holding for the treatment of a similar domestic patient. Referring to Fig. 1, the copayment (B) will be the same but not necessarily the remuneration (B) by SHI. In fact, for domestic patients, remuneration in the Member State of treatment may fall short of the one scheduled by the tariff. Thus, to the extent that such deviations do occur, the pure financial incentive for treating a patient from another Member State will actually be stronger.

More specifically, this will be relevant whenever a tariff or a fee schedule is supplemented by further measures to contain costs. E.g., in Germany, a substantial part of the ambulatory care provided by physicians is subject to a budget such that, for the marginal patient, remuneration of services will be less than the negotiated fees (Busse & Blümel, 2014, pp. 149-153). Furthermore, in the case of hospital care, it is quite common to impose restrictions on revenue per case to account for the high share of fixed costs. For example, with a DRG scheme, a hospital will ultimately receive less than the full DRG payment for a domestic patient. E.g., in Germany, depending on the volume of patients treated, hospitals may have to pay back to SHI as much as 65% of their DRG revenue for the marginal patient (Busse & Blümel, 2014, p. 148). Likewise, in Italy, remuneration of the marginal patient will also typically be lower than the DRG payment (Ferré et al., 2014, p. 66). As these remarks show, the pure financial incentive for treating a patient from another Member State may be quite strong.

Turning to payment risks, there is no additional risk for that part of a provider's remuneration which is paid by a third party in the Member State of treatment because this follows exactly the same procedure as for a domestic patient. Thus, we only need to consider the copayment of the patient. Clearly, to the extent that this payment must be made before treatment, a provider faces no risk at all[2]. However, things are different if the patient must settle the copayment after receiving treatment. In this case, the risk of delay or even (partial) default may be higher than for a domestic patient because it can be more difficult to collect a payment from patients of another Member State.

Lastly, consider the administrative burden on providers associated with implementing the financing arrangement for a patient from another Member State. More specifically, this concerns any effort by the provider to obtain full remuneration. Hence, as with financial risk, this arises only in conjunction with a payment to be made by the patient. To cope with the higher financial risk, a higher administrative burden will arise for the treatment of a patient from another Member State, e.g., for issuing reminders. However, if health insurance in the Member State of treatment is provided by an NHF like the NHS, the administrative burden will be higher even if no payments are to be collected from patients. More specifically, since providers are supposed to identify overseas patients, dealing with such patients requires them to exert more administrative effort.

Consider now a patient from another Member State seeking treatment according to the Directive. With respect to the pure financial incentive, the principle of non-discrimination requires providers to apply the same tariff as for domestic patients. Thus, the incentive appears to be the same as for patients seeking cross-border health care on the Regulations. However, since the patient now is not entitled to be treated like a SHI patient in the Member State of treatment, a provider may be free to or even must apply another tariff, i.e., the tariff for patients either with private health insurance or who are paying directly. In other words, the full payment (B) in Fig. 2 may differ from the sum of remuneration (B) and copayment (B) in Fig. 1. E.g., in Germany, this is true for physicians in the ambulatory care but not for hospital care because, in the latter case, no separate private tariff exists. On the other hand, in the UK, patients from another Member State are to be charged the same fees as ordinary NHS patients unless they specifically ask to be treated as private patients (Department of Health, 2016, p. 82). Summing up, the pure financial incentive for providers likely will be stronger than for treating a similar domestic patient and may also exceed the incentive given by the Regulations.

Turning to payment risk, this now relates to the full remuneration of the provider which the patient must pay upfront. Again, if payment must be made before treatment, no such risk exists. Yet the common practice is to bill the patient after treatment. In this case, the payment due from the patient of another Member State will exceed the copayment of a similar domestic patient, possibly by a rather substantial amount. Thus, there are two reasons for an increase in payment risk: first, the risk relates to a higher pay-

[2] In fact, the NHS has been advised that "… elective treatment should not begin until full payment has been received" (Department of Health, 2016, p. 4).

ment by the patient and, second, it will be more difficult to recover payments from foreign patients[3].

As the example of the NHS shows, somewhat different results exist for an NHF. Applying the principle of non-discrimination, such patients are entitled to receive most health care for free. In particular, this is true for ambulatory care unless a patient explicitly wants to be treated like a private patient which implies that the corresponding fees will be charged (Department of Health, 2016). In fact, the only exception is hospital care since hospitals must charge the patient according to the NHS tariff. Recently, the following incentive scheme has been put into operation: after billing a patient from another Member State, a hospital receives 75% of the amount from the NHS. When the patient has settled the bill, his payment is split up in such a way that the hospital receives a further 25% with the remaining 75% going to the NHS, thereby just compensating the advance payment by the latter to the hospital[4]. Summing up, with respect to the payment risk, the above result for SHI based on benefits-in-kind must be modified in that the risk applies to hospitals only and, moreover, to just 25% of the remuneration.

As for the administrative burden, it is not difficult to see that patients seeking health care on the Directive will also impose a higher burden on providers. More precisely, this is true because the administrative effort is positively correlated with payment risk. In addition, in comparison with similar domestic patients, it is more difficult to obtain payments from patients from another Member State. Again, for the NHS an additional administrative burden arises for providers due to the requirement to identify overseas patients. Unlike the payment risk, this burden is not confined to hospitals.

2.2. Patients

In comparison with treatment at home, patients seeking cross-border health care on either pathway will usually have to bear an additional cost for travel and accommodation. If they are living in a cross-border region, this cost can be small or may not even exist. However, in other cases, it will be substantial and act as a financial disincentive. In what follows we shall not consider the cost of travel and accommodation because it is not part of a financial arrangement for cross-border health care[5].

Consider first a patient on the pathway of the Regulations. Clearly, from his point of view, the pure financial incentive depends on the copayment (B) as depicted in Fig. 1. More precisely, there is an incentive in favour of cross-border health care if, for a given treatment, this copayment is lower than the copayment in the Member State of affiliation. It follows that no such incentive exists if the latter copayment is nil. While this is straightforward, the size of the copayment may depend on which provider is chosen. E.g., for the ambulatory health care in France, there are two groups of physicians both under contract with SHI. Whereas providers in the first group must apply the state-regulated fees, the other providers are free to set higher fees (Chevreul et al., 2015, pp. 96-97). Thus, when a patient is treated by a physician belonging to the second group, the copayment will actually be higher. In sum, the pure financial incentive for cross-border health care may depend on the chosen provider, both at home and abroad[6].

Turning to payment risk, there appears to be no essential difference to receiving treatment at home because the payment procedures in both Member States are similar as far as the patient is concerned. However, as mentioned above, the size of the copayment may depend on which provider is chosen. Hence, if the patient is uncertain about whether his provider abroad will charge state-regulated fees or not while being clear about this at home, cross-border health care does introduce some payment risk. On the other hand, with respect to administrative burden, there is no difference since this is closely related to the payment procedure. Thus, when thinking about whether to seek cross-border health care on the Regulations, a patient will have to consider only the pure financial incentive and possibly the associated payment risk.

[3] E.g., recent data show that more than a third of German hospitals suffer from payment defaults relating to patients from other Member States, with an average loss of almost 3.000 Euro per case (Deutsches Krankenhausinstitut, 2015, pp. 26-29).

[4] The incentive effect of this scheme is bigger for other overseas patients because these are to be charged 50% above the NHS tariff (National Audit Office, 2016, pp. 44-45).

[5] In fact, the Directive leaves some scope for Member States to cover these costs as well (European Parliament and Council of the European Union, 2011). However, we have been unable to find evidence on this.

[6] As mentioned in section 2, SHI in the Member State of affiliation may cover part of the patient's copayment if treatment in the Member State involves a lower cost. Clearly, such a reduction would improve the financial incentive of the patient to seek cross-border health care. However, we have been unable to find empirical evidence on this.

On some contrast, the pure financial incentive set by the Directive depends on the cost of health care in the Member State of treatment. As shown in Fig. 2, after making the full payment (B) upfront, the patient will get reimbursed according to the tariff for SHI or NHF in the Member State of affiliation, with the provision that reimbursement (A|B) must not exceed his/her payment in the Member State B. On balance, receiving health care abroad leads to a copayment equal to the difference between full payment (B) and reimbursement (A|B). In comparison, health care at home would involve a copayment which is the result of netting out the cost of treatment, i.e., full payment (A), with reimbursement (A). Thus, conditional upon a positive copayment at home, treatment abroad will be financially attractive to the patient whenever full payment (B) is lower than full payment (A) (European Patients Forum, 2013, p. 9). On the other hand, there is no pure financial incentive for cross-border health care if health care at home involves no copayment.

It is not difficult to see that the transactions associated with cross-border health care on the Directive involve considerable financial risks for the patient. Due to a lack of information on the associated tariffs, the patient will typically know neither full payment (B) nor reimbursement (A). First, reimbursement at home will be uncertain because SHI or NHF is based on benefits-in-kind such that the patient will not be familiar with the underlying tariff. Second, since full payment (B) may depend on the chosen provider, it will even be more uncertain than reimbursement at home. Recognising the payment risks which these uncertainties impose on the patient, the Directive obliges Member States to set up National Contact Points (NCP) to provide patients with all the necessary information. However, as has been noted repeatedly, at present the information available from NCP is not sufficient to achieve this objective (European Patients Forum, 2015, pp. 9-10; European Commission, 2015a, pp. 12-13; European Commission, 2015b, pp. 8-10).

In addition, as regards reimbursement in the Member State of affiliation, there is strong empirical evidence of further payment risks. E.g., for health care not subject to prior authorisation under the Directive, a sizeable number of requests for reimbursement have been refused (European Commission, 2016, pp. 19-20). Next, considerable delays have been reported due to long processing times of requests for reimbursement (European Commission, 2016, p. 17 and p. 20; European Patients Forum, 2015, p. 9). In addition, there is also a risk that patients will obtain only partial reimbursement (Hartrampf, 2016, p. 12). Finally, some Member States appear to base reimbursement on tariffs which are lower than the going SHI or NHF tariff (European Patients Forum, 2016, p. 11; European Commission, 2015b, pp. 5-6). While this is contrary to the provisions of the Directive, SHI funds or an NHF in the Member State of affiliation thereby impose a further element of payment risk on the patient.

Turning to administrative burden, the patient clearly must exert some effort to complete the financial transaction associated with cross-border health care. At any rate, this includes the request for reimbursement of health care received in the Member State of treatment. Furthermore, in the absence of prior authorisation, the patient may have to produce a translation of the invoice obtained from the provider abroad. More specifically, in some cases, SHI funds or the NHF require a sworn translation (European Patients Forum, 2016, p. 11). Since no effort is necessary when receiving health care at home, seeking cross-border health care on the Directive clearly imposes an additional burden on the patient.

2.3. SHI or NHF

For a patient receiving cross-border health care according to the Regulations, we need to consider the impact on SHI or NHF in both Member States. First, for a SHI fund in the Member State of treatment, the pure financial incentive is strong because these funds, acting only as a financial intermediary, can claim full reimbursement. However, there is a payment risk as SHI or NHF in the Member State of affiliation may delay or even default on reimbursement (Hérault, 2012, p. 185). Finally, to request reimbursement, some administrative burden must be incurred. In contrast, no administrative effort arises for the remuneration of providers as the procedure will be the same as for similar domestic patients.

The case of an NHF can be somewhat different as the example of the NHS demonstrates. More specifically, this statement refers to both payment risk and administrative burden. As argued above, currently it is difficult for providers in the UK to identify overseas patients, a group which also includes patients from other Member States. In fact, in the absence of specific action by the NHS, they also lack the incentive to do so. In turn, it falls on the NHS to set appropriate incentives for providers. Clearly, this imposes an additional administrative burden on the NHS.

Moreover, while the payment risk associated with the charges on SHI funds or NHF in another Member State is no different from the one described above, another risk relates to the size of charges. Even though precise data for planned health care according to the Regulations are lacking, there is clear evidence that only a small part of the total cost is actually charged (House of Commons, 2017, pp. 4-5).

Turning to SHI or NHF in the Member State of affiliation, consider first the pure financial incentive. Referring to Fig. 1, as net remuneration (B) must be fully reimbursed, there will be a pure financial incentive whenever net remuneration (A), i.e., the cost of treatment at home to SHI or NHF, is higher. Hence, a low total cost of treatment in Member State B or a high copayment (B) by the patient, both in relation to the corresponding values for Member State A, will produce a financial incentive for cross-border health care. However, since these conditions are not necessarily fulfilled in practice, no general conclusion is available for the pure financial incentive.

Moving on, we can address the other two criteria very briefly. In fact, there is no payment risk as an SHI fund or the NHF simply must reimburse the cross-border treatment of an insured patient, conditional upon prior authorisation. Upon receiving the invoice from SHI or NHF in the Member State of treatment, it is only necessary to check whether this corresponds to what has been authorised. Thus, some — rather minor — administrative burden arises.

With the Directive, it suffices to consider SHI or NHF in the Member State of affiliation as these are the only third payers involved in the financial transaction due to cross-border health care. More specifically, as explained above, health care received abroad will be reimbursed according to the rules and tariffs at home, with full payment (B) by the patient as an upper bound. Thus, neglecting the boundary case in which full payment (B) is just equal to the cost of treatment at home to SHI or NHF, a pure financial incentive for cross-border health care will generally exist.

Upon receiving a request for reimbursement, an SHI fund or NHF in the Member State of affiliation must examine the invoice and other documents to determine the amount to be paid out to the patient. Thus, the associated workload will be higher than for a similar domestic patient due to, e.g., the necessity to review the medical documentation or to produce a sworn translation of an invoice, the latter pertaining to cases with prior authorisation (European Commission, 2015a, p. 13). As an implication of the higher administrative burden, some payment risk will also arise because the result of checking the documents produced by the patient may influence the amount reimbursed.

3. Discussion

In this section, the implications for providers, patients and SHI or NHF will be put together to obtain a comprehensive view of the financing arrangements. More specifically, we will look at the impact on cross-border health care induced by these arrangements. In addition, the feedback effects on national health policy will also be addressed briefly.

Turning to the financial arrangement of the Regulations, let us first look at the financial incentives of providers and patients. As demonstrated above, the incentive for providers to treat patients from another Member State is at least as strong as for a similar domestic patient. On the other hand, patients will have an incentive to seek treatment in another Member State if the copayment is lower than at home. Thus, the direction of cross-border health care induced by the financing arrangement will depend on the financial generosity of the publicly funded health care systems in other Member States in comparison with the health care system at home. In particular, if some treatment is included in the benefit basket of SHI or NHF in another Member State but not at home, there is a strong financial incentive for patients to go abroad.

From the viewpoint of trade theory, cross-border health care enhances welfare if patients either obtain the same treatment at a lower cost or a better treatment at an additional cost that is considered to be worth paying. However, it is not difficult to see that the focus on copayments induced by the Regulations may produce quite different patient flows because the financial generosity of the national health care system may provide the wrong signal to the patient with respect to the cost of care. Thus, the overall impact upon welfare of the Regulations is by no means clear.

Moreover, the financial incentive of SHI or NHF at home need not be fully aligned with the interests of patients and providers. Clearly, for health care not included in the benefit basket at home, there is no such incentive. Even though the financial implications will be less serious, a similar observation holds for health care which is available abroad at a lower copayment but imposes a higher cost to SHI or NHF.

In all other cases, the pure financial incentives of the three actors involved will coincide.

It is important to observe that, whenever the financial incentive of SHI or NHF conflicts with the incentives of providers and patients, the financial arrangement associated with the Regulations may severely threaten the viability of the publicly funded health care system in a Member State. To see this, suppose that cross-border health care was to occur on a substantial scale in such cases. Then, patients going abroad to receive treatment would increase the cost to SHI or NHF at home, with a particularly strong impact on expenditure due to health care not included in the benefit basket. In turn, this imposes a constraint upon cost containment policy in the Member State of affiliation. More specifically, limiting the benefit basket or imposing high copayments might not be feasible because cross-border health care would provide patients with an opportunity to circumvent these features of national health policy.

Up to now, we have focused on the financial incentive, thus neglecting the other two criteria which also belong to a financial arrangement. However, apart from a few special cases, both the payment risk and administrative burden will be negligible for this particular pathway to cross-border health care. Hence, under the Regulations, the overall impact of the associated financial arrangement is governed almost entirely by the financial incentive. Nevertheless, to obtain a complete picture, it is necessary to consider further aspects. First, and foremost, patients need prior authorisation before going abroad for medical treatment. In fact, as mentioned above, SHI or NHF in a Member State may well refuse prior authorisation in cases in which the financial arrangement would impose a threat upon national health policy[7]. More specifically, the only exception concerns health care that belongs to the benefit basket at home but cannot be made available in due time to a patient. However, in such cases, the impact upon expenditure of SHI or NHF will be rather moderate. Finally, another aspect relates to the cost of travel and accommodation associated with cross-border health care. Unlike prior authorisation, this acts to dampen the incentive to go abroad in any case.

Even though prior authorisation as a means to control cross-border health care on the pathway given by the Regulations is certainly important, the impact of the financial arrangement should not be underestimated. On the one hand, the incentives provided by this arrangement influence both how often and for which types of care patients will apply for prior authorisation. On the other hand, to circumvent this restriction, patients may attempt to pretend unplanned health care. This represents another pathway to cross-border health care according to the Regulations which is, for obvious reasons, not subject to prior authorisation (Busse et al., 2011, p. 78; Footman et al., 2014, p. 10).

Consider now the financial arrangement provided by the Directive. Again, it is helpful to begin with the financial incentives of the main actors. Clearly, providers have an incentive to treat patients from another Member State because their remuneration will be at least as high as under the Regulations. As argued in the previous section, conditional upon a positive copayment for health care at home, the incentive of patients is to consider the full cost of treatment abroad. More specifically, if the latter is lower than at home, cross-border health care offers the opportunity to save some or even all the copayment at home. On the other hand, if health care abroad is more expensive, the patient will be reluctant to bear the additional cost unless the health benefit offered by the treatment is evaluated to be worth it.

In addition, the financial incentive of SHI or NHF in the Member State of affiliation has been shown to fully coincide with the incentives of both providers and patients[8]. Thus, confining attention to the pure financial incentive of the actors involved, the impact of the Directive is to engender patient flows among Member States such that overall welfare will be enhanced. However, due to the application of a different tariff, health care may be more expensive when provided to patients from another Member State. Then, the incentives for cross-border health care will be weakened somewhat and, by implication, this acts to reduce the associated welfare gains.

These positive effects notwithstanding, cross-border health care according to the Directive also involves serious threats to national health policy. First, it may weaken or even nullify policies designed to contain the cost of health care. More specifically, consider a policy which imposes a restriction upon the volume of care provided by setting marginal remuneration below average remuneration. While this is quite common for hospital care to account for the large share of fixed costs, it may also apply to

[7] In particular, this is true for health care not included in the benefit basket of publicly funded health insurance in the Member State of affiliation.

[8] Note that this statement refers only to providers directly involved in cross-border health care, i.e., to providers in the Member State of treatment.

outpatient care[9]. Clearly, if patients go abroad to receive treatment, restrictions upon the volume of care at home will be weakened or even become ineffective. Moreover, given that reimbursement in the Member State of affiliation will be based on average remuneration, the incentive to obtain health care in another Member State turns out to be too strong. Second, cross-border health care on the Directive also gives rise to an equity problem. More precisely, only patients who are able to pay upfront will have access to treatment abroad[10]. Given that treatment can easily involve a substantial cost which only few people can afford to pay, the Directive involves a lack of equity of access to cross-border health care.

Apart from the financial incentives, the financing arrangement of the Directive must also be evaluated with respect to the two other criteria. As demonstrated in the previous section, this pathway to cross-border health care involves substantial payment risks and a rather high administrative burden for both patients and providers. Since these act as a disincentive, their impact is to diminish patient flows within the European Union. Building on the line of reasoning exposed above, this has two effects: while the gains from cross-border health care will be lower, the threats to national health care policy turn out to be less serious as well. Presumably, with this ambiguity in mind, the European Parliament and the Council of the EU stated that the Directive "should not result in patients being encouraged to receive treatment outside their Member State of affiliation" (European Parliament…, 2011).

Finally, there are further aspects to consider to obtain a complete picture. First, Member States may also introduce a system of prior authorisation under the Directive. However, as mentioned above, this must be confined to special types of health care. Currently, while several Member States have not introduced prior authorisation at all, other Member States rely on it as a means to control cross-border health care according to the Directive (European Commission, 2015b, pp. 4-5). To the extent that prior authorisation relates to health care subject to national policies, it also provides an instrument to preserve, e.g., a policy designed to contain the cost of care.

[9] E.g., in Germany, this is also true for the remuneration of ambulatory care physicians by SHI.

[10] Even though Member States are free to introduce a system of direct payments which would solve this problem, we have been unable to find evidence on this. Thus, it seems safe to assume that patients will have to pay upfront even for hospital care.

Conclusions

In the present paper, we analyse the impact of the financing arrangements associated with the pathways to cross-border health care within the European Union. More specifically, while our prime objective is to investigate the effects upon the direction of cross-border health care, we also address feedback effects on welfare and national health policy. With a focus on planned health care, our analysis covers the main actors, i.e., providers, patients, and Statutory Health Insurance (SHI) funds or a National Health Fund (NHF). Apart from the financial incentive, a financing arrangement is taken to include payment risks and administrative burden. By adopting a broad perspective, both with respect to actors and financing, a comprehensive analysis of the pathways provided by the Social Security Regulations (Regulation 883/2004) and the EU Directive 2011/24/EU can be undertaken.

For the financing arrangement of the Regulations, providers will always have a financial incentive to provide care to patients from another Member State. In contrast, the incentive of patients critically hinges upon the copayment abroad which must be lower than the copayment at home. Since, apart from a few special cases, both the payment risk and administrative burden are rather small, the incentive of patients turns out to be crucial for the direction of cross-border health care induced by the financing arrangement. However, given that the incentive of SHI funds or the NHF rather depends on the cost of health care to be borne by them, the interests of third party payers may well run counter to the interests of patients. If such a conflict exists, cross-border health care will increase health care expenditure by SHI or NHF, and may also reduce the overall welfare. In particular, it will threaten the national health policy by setting an incentive for patients to go abroad to obtain funding for health care not included in the benefit basket of SHI or NHF at home.

For the financing arrangement of the Directive, we obtain different results. Again, providers will have a financial incentive to provide health care to patients from another Member State. However, conditional upon a positive copayment at home, patients will now want to go abroad if this involves a lower total cost. Thus, the financial interests of patients and third party payers do coincide in such a way that cross-border health care will dampen expenditure by SHI or NHF and enhance welfare. Nevertheless, there are

several reasons to qualify this result. First, the pathway associated with the Directive imposes a considerable cost in terms of payment risk and administrative burden upon both patients and providers. Next, for cost containment policies involving a remuneration of providers such that the marginal payment is lower than the average payment, the financing arrangement can be shown to provide an incentive that is too strong while also undermining national health policy. Finally, due to the requirement to pay upfront for health care in another Member State, the pathway of the Directive also fails to ensure equity of access to cross-border health care.

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