Study on better cross-border Cooperation for high-cost Capital investments in health

Final Report

Executive Summary

November 2016

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Executive Summary

Background
In Europe, the medical equipment sector is characterised by a large share of overall health budgets spent for the provision of healthcare services through the use of capital investment goods such as medical scanners, radiotherapy units, etc. At the same time a high variability in provision and utilization rates of medical equipment can be observed between Member States. This high variability may suggest the need for improving efficiency in the use of medical equipment. Hence, one way of addresing potential efficiency gains may be found by pooling resources between Member States. Further, policy trade-offs between efficiency gains are likely from the perspective of public payers and the patients (i.e. travelling distance and related costs).

This study is related to various policy initiatives initiated by the European Commission:

- The Patients' rights in Cross-border Healthcare Directive, more specifically in the areas of Cross-border cooperation (Article 10, paragraph 3), Article 8 Healthcare that may be subject to prior authorisation and Cooperation on HTA (Article 15).
- The Commission Communication on effective, accessible and resilient health systems
- Interregional cooperation programmes

Moreover, this study supports the follow-up to the December 2013 Council Conclusions on the "Reflection process on modern, responsive and sustainable health systems". In particular, the invitation to the Commission to "support exchanges of best practices and mutual learning among Member States on the effective and broader use of European Structural and Investment Funds for health investments.

Rationale and objectives of the study
The general objective for this study was to contribute to effective Cross-border cooperation between EU-Member States by means of pooling resources for high-cost medical equipment investments. Accordingly, the specific objectives were:

- to select candidate devices (cost-intensive and highly specialised medical equipment) where Cross-border investment resource pooling may be recommendable.
- to assess efficiency gains at play from the perspective of public payers for selected medical equipment
- to provide an overview of available evidence per candidate device relevant for determining public budgets
- to propose Cross-border cooperation mechanism for resource pooling of cost-intensive medical equipment investments
- to consult key stakeholders (i.e. patients, public payers, healthcare providers and the medical industry) on the proposed mechanism

Selection of medical equipment
Candidate equipment being cost-intensive and highly specialised has been identified by a combined evidence search and an expert consultation. After prioritization of the identified medical equipment, the 20 first ranked types have been assessed by opertionalized criteria reflecting cost-intensiveness and high specialization grade. Three benchmarks have been considered for assessing cost-intensiveness (i.e. Affordability ratio I ≥ French benchmark, Acquisition costs ≥ 750,000 Euro, Affordability ratio I ≥ 75% quantile). Specialization grade has been assessed by using one benchmark reflecting technical complexity (i.e. technical complexity ratio ≥ 75% quantile). Depending on the cost-intensiveness benchmark applied, the results vary across countries. The most differenciated results are gained when using the 75%-quantile of the Affordability ratio I.

Thus, combining it with the technical complexity benchmark, leads to a minimum set of cost-intensive and highly specialized medical equipment across EU-Member States[1]:

- MRI scanners
- CT scanners
- Stereotactic systems and
- Surgical robots

Five types of medical equipment neither fulfil the criterion for cost-intensiveness, nor for high spezialization grade:

- Hyperbaric Chamber
- Incubator (infant, transport)
- Mass Spectrometers
- Gamma camera/Scintillation camera/Anger camera

Efficiency assessment of medical equipment
Efficiency gains have been assessed by two different approaches. First a **benchmark approach** reflecting a more real-life approach, as it refers to the actual situation in the EU-Member States, was applied. The second – **best-practice – approach** is a more theoretical one, as it refers to the expected situation according to the evidence available. The assessment was based on provision and utilization data at Member State level. For those medical equipment where utilization data was missing (i.e. 96utilization rates for Gamma cameras, Angiography units and Lithotriptors for all Member States as well as PET scanners for some countries), data has been imputated conditionally on the provision rates. Data on the need of medical equipment types served as additional parameter for the best-practice approach. The assessment using the benchmark approach was performed for MRI, CT scanners, PET scanners, Angiography units, Gamma cameras and Lithotriptors. As need data was not available for all those types of medical equipment mentioned, the assessment using the best-practice approach was performed for CT scanners, Gamma Cameras, MRI and PET scanners only.

The identified potential cost-savings should be seen as theoretical cost savings or potential savings in future, respectively, rather than actual savings. This can be explained as those savings cannot be achieved by the reduction of medical equipment excess once it is bought. Rather it gives indication for a country not to buy more equipment, if medical equipment excess is already evident. Furthermore, cost savings reflect the maximum saving potential. This is due to the calculation method using life time equipment costs, which are based on acquisition and service costs over the expected life time.

The results of the best-practice approach show potential cost savings due to under-or overutilization per device group and EU-Member State. On this basis one could derive potential Cross-border candidates (i.e. countries potentially benefitting from synergies due to over- and underutilization). However, as this analysis offers a view on health systems on a very macro level it is not possible to give detailed insights which countries should cooperate with each other. For a more in-depth analysis of Cross-border actions it is recommended to pick potential countries from the results above and conduct an analysis on micro level which gives possibility to take account of among others differences in health system structures and regulations. Due to the fact that literature and information on the need of devices is scarce and available data has wide ranges the results on the benchmarking method should be prioritised over those of the best-practice approach.

[1] Exceptions can be found in Chapter **Fehler! Verweisquelle konnte nicht gefunden werden.**

Assessment of EU cooperation efforts
Six examples for Cross-border cooperation have been investigated in the course of the study. Cross-border cooperation, which applies only to the shared use of high cost medical equipment, could not be identified. However in the selected examples, the use of high cost medical equipment is always one aspect of a broader cooperation agreement:

- Germany – Denmark Radiotherapy for Danish patients in Flensburg
- Malta – United Kingdom Cross-border cooperation covering a variety of treatments
- Austria – Germany Hospital collaboration between Braunau and Simbach
- France – Spain Cerdanya Cross-border hospital
- Germany – Austria Cross-border collaboration between Füssen and Reutte
- Germany – Netherlands Maastricht-Achen University Hospital

The **six selected Cross-border examples** demonstrate a wide variety of options regarding the structure, extent and organisation of Cross-border cooperations: cooperation in one medical field (Füssen-Reutte) vs. a variety of medical fields (Maastricht-Aachen) vs. specific Cross-border hospital (Cerdanya). Five of six Cross-border examples were cooperations close to the borders (exemption Malta/UK). In four of six examples EU funds played an important role for starting the projects.

Due to the different models, they faced varying challenges and success factors. However, one could summarize that the main barriers refer to structural differences regarding the health care systems and the fear that financial resources are flowing out of the national health system. The main success factors were: advantages for the cooperating countries on both sides, clear financial and legal agreements, competent and engaged people who are pushing forward the project and stable political support. Another supporting factor is that the cooperating regions had already general experience in cooperation in other areas.

Stakeholders' and patients' point of view
Two surveys have been conducted in order to gain information from stakeholders and patient representatives on challenges and success factors for Cross-border cooperation on cost-intensive and highly specialized medical equipment as well as on the current and future impact of Cross-border cooperations on patients. The stakeholder survey was completed by 83 respondents from 27 EU-Member States reflecting a response rate of 12.6%. The patient survey generally was of smaller scale and was completed by nine patient representatives of nine EU-Member States reflecting a response rate of 21.7%. Explanations for the low response rates can only be guessed. Possible reasons refer to the complexity of the topic and possible low priority of the topic on behalf of stakeholders.

Main challenges identified through the stakeholder survey refer to organisational and/or administrative issues at national level as well as between EU countries, funding issues, different reimbursement schemes and lacking political support. Another issue which was frequently mentioned is the lack of information. This refers not only to the establishment of Cross-border cooperation but also to the patients' awareness about those. According to the results of the patient survey, further barriers for not making use of Cross-border health care services refer to the costs and administrative hurdles associated with it. Factors facilitating Cross-border patient mobility are high waiting times in patients' home countries, the quality of care in the foreign country and lack of necessary equipment in the patients' home country. Further supporting factors mentioned by patient organisation's representatives refer to family members living in the Cross-border country as well as proximity to the border. However, results of the patient survey were characterised by a high rate of "don't know" answers, which might be an indication that the complexity of this topic is too high for that kind of survey.

As with the challenges, **success factors** and recommendations for policy measures to be taken at national and EU level, respectively, mostly refer to areas such as information and organisation. Success factors in the area of information are diverse and closely related to transparency and awareness building as well as the creation of evidence.

Success factors deriving from an organisational point of view refer to measures which simplify the processes of working together such as the alignement of regulation, the establishment of a coordinating institution or measures to limit fragmentation.

Limitations of the study
The study suffers from several limitations, many of which are linked to the assumptions that were, and had to be, made (e.g. perfect rationality in planning decisions). Data availability in the EU on provision and utilisation rates of medical equipment is only limited. Moreover, no aggregated data (i.e. at country level) for staff scarcity, training years for medical specialists and professionals for operating equipment was readily available for all medical devices examined.

Regarding the stakeholder and patient survey, a low response rate was also an issue. One possible explanation is that patient organisations are not the right contact point for investigating patient mobility for cross-border healthcare involving cost-intensive/highly specialised medical equipment. The specific focus on cost-intensive and highly specialised medical equipment was probably too complex for the target group.

As a consequence of the low response rate, not all EU-Member States could be covered. However, a balance regarding regional distribution was partly achieved, as countries of Northern, Eastern and Western Europe were represented in the survey. Nevertheless, a bias in survey results is not to be excluded.

A balanced mix of stakeholder representatives was also an issue in the stakeholder workshop held in Brussels in October 2015. For example, representatives of patients or Health Technology Assessment bodies could not participate in the workshop. Therefore, recommendations developed during the workshop might not be fully validated and thoroughly assessed. For a more elaborate discussion of the main assumptions and limitations, please refer to chapter 3 and respectively to section 4.4.3 of this report.

Conclusions and policy recommendations
The study at hand highlighted the fact that Cross-border cooperation in the field of cost-intensive/highly specialized medical equipment could bring economic advantages for many EU-Member States – in most cases a win-win situation for all cooperating parties involved. Despite this, still only little is done by EU-Member States in terms of cooperation in the field of cost-intensive/highly specialized medical equipment. Reasons are diverse and can be ascribed to lacking information, differences of national health systems, organisational and administrative hurdles and lacking political support.

Based on the study's results, following recommendations can be given at EU level.

Mapping of the medical equipment sector

The medical equipment sectors across Europe is characterised by a high grade of diversity. Country specific information on the medical equipment sector (e.g. organisation, allocation of responsibilities and relevant actors involved) is scarce and regulations are differently designed across EU-Member States. Furthermore, lacking transparency regarding purchasing processes, newly launched technologies as well as the relevant actors in this field can be observed.
Action: Commissioning of a study, focusing on a mapping of the medical equipment sector including a description of the structures and identification of (further) stakeholders exceeding this study at hand. Focus should be laid especially on stakeholders interested in Cross-border cooperation in the field of cost-intensive investments, in order to enable specific targeting.
To be addressed by: A research institute under the involvement of relevant national institutions and experts from a diverse spectrum of EU-Member States. DG SANTÉ can be an option for being commissioner**.**

Establishment of a platform or network for cost-intensive/highly specialized medical equipment

Currently, there are no possibilities for (early) structured information exchange (i.e. about successful models, possible forms of contracts and essential aspects of cooperating). Information exchange not only between individual stakeholders but also between existing networks should be fostered by workshops, seminars but also media communication such as newsletters and a homepage.

Action: Building up a platform or network for Cross-border cooperation for "cost-intensive/highly specialized medical equipment" which should be coordinated by a specifically designed coordination body.

To be addressed by: Commissioning of a coordination body by DG SANTÈ

Evaluating effectiveness and efficiency of cost-intensive/highly specialized medical equipment

Besides the evaluation of safety, effectiveness before purchasing a (new) technology an economic evaluation and a budget impact analysis is advised. This applies not only for national purchasing decisions, but also if the option of a CB cooperation is possible.

Action: HTA reports should be used for assessing effectiveness and safety of (new) and expensive medical equipment including economic analyses (e.g. budget impact analysis) pointing out economic aspects of potential Cross-border cooperation's pooling variants. HTA results as well as results of economic analyses should be widely published, especially decision makers should be adequately informed about results.

To be addressed by: The HTA-Network should can serve as the strategic actor. Implementation is possible by EUnetHTA Joint Action 3. Topics to be dealt with can be turned in by Member States or by the newly created platform or network for Cross-border cooperation on high-cost/highly specialized medical equipment.

Organisational and administrative support

Organisational and administrative barriers arise within and across countries and are highly diverse, such as contracting, ICT collaboration, country-specific processes, etc.

Action: Information about the possibilities regarding bi- and mulit-lateral contracting; provision of model contracts; legal and organisational support for questions regarding the cooperation

To be addressed by: Medical equipment platform or network with the support of relevant EU institutions/departments. Alternatively existing structures such as the *'European Grouping of Territorial Cooperation'* (EGTC) or the EuPHN-network could be tried to win for this function.

Patient support

Provision of more and better information by National Contact Points for Cross-border health care and foster learning from best practice examples such as Denmark/Germany.

Action: One possibility is that the National Contact Points and/or national insurance or in general the national health care system informs patients more specifically about possibilities of cross border treatment and related administrative issues.

To be addressed by: National Contact Points and/or responsible departments for cross border in national insurance or national health care systems

Political support

Lacking political support needs to be tackled by informing about the benefits related to Cross-border cooperation.

Action: Promotion of seminars and presentations focusing on benefits of cooperations at national and regional level. These information can be provided in different EU languages via the website of the platform/network. Facilitate dialogue with political decision makers at regional, national as well as EU level.

To be addressed by: Dissemination via Platform or network for cost-intensive medical equipment. Some alternative actors for the platform or network could be the EGTC and the EuPHN.

The promotion of Cross-border cooperation in the field of high-cost/highly specialized medical equipment by pooling of resources is a complex exercise. Considering national competences of Member States, an added value can be achieved by improved cooperation and coordination at EU and national level by an integrated approach. Added value in this context refers to a contribution to solving the waiting list problematic, provide access to health care services closer to one's home, access to health care not offered in one's home country and economic advantages related to the joint utilization of high-cost/highly specialized medical equipment.

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