Sampling instead of travelling: A strategy that brings more hope to children waiting for bone marrow treatment abroad

A case of the EsSalud - Social Health Insurance Institute

EsSalud - Social Health Insurance Institute
Peru
Summary

Most patients requiring Unrelated Bone Marrow Transplantation – UBMT (trasplante de médula ósea no emparentado – TMO-NE) through Peru’s Social Health Insurance Institute (Seguro Social de Salud – EsSalud) are being treated for leukaemia, and the majority of these are children.

UBMT proceeds in two stages. The first involves analyzing the patient’s Human Leukocyte Antigens (HLA) so that the search for donors can begin. Until December 2015, patients travelled abroad, and it took two and a half months for a medical committee to decide whether they were fit for this. The average cost per trip was 10,000 US dollars (USD). (This method was termed first-generation sampling.)

Based on the experience of the Intangible Solidarity Fund for Health (Fondo Intangible Solidario de Salud – FISSAL) of the Peruvian Ministry of Health (Ministerio de Salud de Perú – MINSA), blood samples began to be sent abroad in December 2015 (referred to as second-generation sampling). This put an end to pressure being exerted for UBMT to go ahead, saved USD 8,500 per patient in travel costs and removed the risks associated with travel for leukaemia patients. This freed up budgetary resources to treat more children with leukaemia and there is no longer any need for pressure to be exerted to speed the process up because all patients enjoy equal treatment.

The issue or challenge

What was the issue or challenge addressed by your good practice? Please provide a short description.

HLA analysis in patients awaiting UBMT abroad involved lengthy waiting times and high costs. The patients most commonly requiring transplants of this type are children diagnosed with leukaemia.

There was therefore a pressing need to find a different and less costly treatment method without compromising service quality. Sampling requiring patients to travel abroad also involved social drawbacks for patients, the majority of whom were children, in that they had to be taken away from their families and friends as well as shouldering the emotional burden of travelling to a foreign country. The accompanying person’s work was also affected in that they had to request ten to 15 days’ leave, which meant a reduction in pay, and such leave was often difficult to obtain. Furthermore, if the accompanying person was the child’s mother and she had other children, she had to find someone in Peru to look after them in her absence.

Addressing the challenge

What were the main objectives of the plan or strategy to resolve the issue or challenge? List and briefly describe the main elements of the plan or strategy, focusing especially on their innovative feature(s) and expected or intended effects.

1. Reduce the waiting time for samples to be taken from patients awaiting UBMT.
2. Reduce the costs involved in the first stage of UBMT.
3. Reduce the “pressure” exerted in various ways to “speed up” processes.
4. Increase beneficiaries’ satisfaction.
5. Reduce the risks to which patients are exposed when travelling abroad.
6. Avoid the upheaval involved in taking patients (especially children) away from their usual microenvironment and their closest relatives, which is particularly detrimental in the case of patients from the Peruvian jungle or mountainous areas of the country.

Plan or strategy: to implement a system for sending samples abroad (second- and third-generation sampling) instead of patient travel to make services more accessible and increase the well-being of a greater number of vulnerable beneficiaries.

Main elements:

1. Identifying innovative processes: CMEPAE committee session.
2. Outreach to institutions that have implemented the good practice: FISSAL (Fondo Intangible Solidario de Salud).
3. Pre-design of the process to be implemented: sub-processes involving specialist physicians, patients, Edgardo Rebagliati Martins Hospital, Peru, sampling location, Jackson Memorial Hospital, Miami, courier, purchasing of kits, customs arrangements for importing and exporting of kits, follow-up of results.

Although the idea was not unprecedented, it was innovative from EsSalud’s point of view because it had not been done there before. Only FISSAL/MINSA had previously implemented such a system in Peru. The innovative feature is that, rather than the patient travelling abroad for the sample to be taken as the first stage of bone marrow transplantation, a blood sample is sent abroad. This avoids a host of additional risks for the patient, significantly reducing costs and completely eliminating the social drawbacks involved in patient travel. When sampling involves patient travel, we term it first-generation sampling; when only a blood sample is sent abroad, we term it second-generation sampling; and when the sample of oral mucosa is taken, we term it third-generation sampling.

**Targets to be achieved**

*What were the quantitative and/or qualitative targets or key performance indicators that were set for the plan or strategy? Please describe briefly.*

1. Waiting time for sample to be taken from the point at which the UBMT decision is made. **Indicator:** waiting time in days or hours.
2. Amount saved since the good practice was implemented. **Indicator:** saving in USD from December 2015 to December 2016.
3. Begin sending samples abroad for paediatric patients awaiting UBMT. **Indicator:** number of samples sent abroad for paediatric patients awaiting UBMT.

**Evaluating the results**

*Has there been an evaluation of the good practice? Please provide data on the impact and outcomes of the good practice by comparing targets vs actual performance, before-and-after indicators, and/or other types of statistics or measurements.*
This good practice makes a useful contribution because it not only makes it possible to improve the quality of life of the most vulnerable members of the population – in this case leukaemia patients, most of whom are children – but also aims to increase their life expectancy by drastically reducing the time to wait before the search for donors for the required bone marrow transplant can begin. It also seeks to resolve current gaps in public service coverage and quality and create greater opportunities, leading to social inclusion for the targeted groups: as costs are significantly reduced, the existing budgetary resources go further, covering a greater number of leukaemia patients awaiting UBMT, as well as patients with other conditions.

<table>
<thead>
<tr>
<th>Before</th>
<th>After</th>
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<tbody>
<tr>
<td>Waiting time for sample to be taken: on average, 75 days from first Specialized Medical Committee meeting.</td>
<td>Waiting time for sample to be taken: maximum of one to seven days from first Specialized Medical Committee meeting.</td>
</tr>
<tr>
<td>Cost of HLA analysis and donor search: on average, USD 10,000.</td>
<td>Cost of HLA analysis and donor search: on average, USD 1,500.</td>
</tr>
<tr>
<td>Pressure was frequently exerted regarding patients’ travel for sampling.</td>
<td>Pressure is no longer exerted for the sample to be taken.</td>
</tr>
<tr>
<td>All sampling required patient travel.</td>
<td>Since December 2015, no patients have travelled for sampling.</td>
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<tr>
<td>Samples were not sent abroad.</td>
<td>From December 2015 to December 2016, 46 second-generation samples were sent abroad.</td>
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</tbody>
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Impact in figures:

1. Sending 46 samples abroad has saved EsSalud USD 391,000, or more than 1,329,000 Peruvian soles (PEN).
2. There is now no need for pressure to be exerted for sampling to occur in the first stage of bone marrow transplantation.
3. Beneficiary satisfaction has improved considerably.

Other outcomes achieved:

1. The institution no longer receives complaints relating to extended waiting times for samples to be taken from patients awaiting UBMT.
2. The management of all beneficiaries requiring sampling with a view to UBMT has become equitable and fair, without discrimination or favouritism. External pressures, which were previously commonplace, have been eliminated.

**Lessons learned**

*Based on the organization’s experience, name up to three factors which you consider as indispensable to replicate this good practice. Name up to three risks that arose/could arise in implementing this good practice. Please explain these factors and/or risks briefly.*

**Factors:**

1. It must always be borne in mind that existing paradigms can be broken; benchmarking should be adopted as a permanently useful tool.
2. Teamwork enables results to improve, and is also possible for people of different nationalities who are working in different places in the world, paying no heed to national borders.

3. Tests and simulations must always be carried out before a new process is implemented.

**Risks:**

<table>
<thead>
<tr>
<th>Internal risks</th>
<th>How was it addressed?</th>
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<tr>
<td>Man hours</td>
<td>A contract was signed with a medical professional.</td>
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<tr>
<td>Storage for the kits</td>
<td>These are stored in a four-drawer personal filing cabinet.</td>
</tr>
<tr>
<td>Payment for local travel</td>
<td>Paid out of pocket and subsequently reimbursed.</td>
</tr>
<tr>
<td>Person taking sample</td>
<td>Highly committed staff were found.</td>
</tr>
<tr>
<td>Payment for initial kits</td>
<td>A decision was taken authorizing the purchase of 34 kits.</td>
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