



Transformation of the out-patient journey

**Joint statement of demand for innovation to optimise
and personalise hospital out-patient pathways**

JOINT STATEMENT OF DEMAND FOR INNOVATION TO OPTIMISE AND PERSONALISE HOSPITAL OUT- PATIENT PATHWAYS

Azienda Ospedaliero-Universitaria, Policlinico di Sant'Orsola (AOU-BO) needs to transform the out-patient experience by personalising and integrating the whole out-patient journey, from appointments, arrival on site and safe departure.

"We need to improve the overall out-patient experience by ensuring that out-patients visits are as smooth and stress free as possible and that it is tailored to their individual needs."

Daniela Pedrini, Director of Technical Services

This joint statement of demand describes the current situation and its limitations, why innovation is needed, and the outcomes required of the new solution.

In order to demonstrate a credible market demand for a solution that can deliver these outcomes, we have been reaching out to other hospitals that may have a similar need and may, in the future, be interested in buying such a solution and / or collaborating in this initiative.

The following organisations have confirmed that they support this initiative and share this unmet need:

Azienda Sanitaria Dell'alto Adige – Bolzano (Italian South Tirol)
Ircs Burlo Garofolo – Trieste (Friuli Venezia Giulia)
Azienda U.L.S.S. N.6 Euganea (Veneto Region)
Azienda Ospedaliera S.Croce E Carle – Cuneo – (Piedmont)
Azienda Unita'sanitaria Locale Di Imola (Emilia – Romagna)
Montecatone Rehabilitation Institute (Emilia – Romagna)
Azienda Ospedaliera San Giovanni Dell'addolorata – Rome – (Lazio)
Azienda Ospedaliera Di Cosenza – (Calabria)
Azienda Di Rilievo Nazionale Ed Alta Specializzazione
Arnas G. Brotzu – Cagliari (Sardinia)
Azienda Ospedaliera Di Rilievo Nazionale
E Di Alta Specializzazione Garibaldi – Catania – (Sicily)

Via this document we are continuing to reach out to other healthcare providers who may be interested in new and innovative solutions to improve the out-patient pathway. We therefore invite you to read this statement of demand and provide your feedback via a short survey. Alternatively get in touch with us via email. You can find the link to the survey and email contacts at the end of the document.

Please pass this document onto anyone you think would be interested.

The current situation

The AOU-BO (University Polyclinic of Bologna) is a large and complex pavilion hospital adjacent to the historical city centre. The hospital complex consists of 32 buildings (28 of them dedicated to medical care), dating from the end of the XVI century to the present. It occupies a largely vehicle free site of about 22 hectares (220,000 m²) which has no access for private cars. The site is defined by major city streets and access to the site is via 16 different entrances.

AOU-BO is a national reference hospital and currently serves a large population from across the region and beyond. In 2019, a typical year, the hospital provided in the order of 4 million specialist medical services. This equates to around 4,000-5,000 out-patients visiting the hospital complex each day. While out-patient services are an important part of clinical care and support, the volume of out-patients moving across the site under the present system presents a challenge and puts pressures on the whole system, including security, cleaning, transport etc.

The current hospital out-patient **appointments system** and pathway is typical of many health care providers; hospital departments arrange out-patient appointments and further hospital appointments can be made on-line by different parts of the system such as patients, local GPs, hospital consultants and the administrations responsible for managing screening etc. The patient receives confirmation of the appointment by letter or email and, in some cases, reminders are sent by text messages to their mobile phones. If appointment times are unsuitable, or if the patient is unable to attend, they must contact the hospital or clinic to cancel or rearrange the appointment.

Arrival and navigation present a complex challenge for many out-patients. The means by which out-patients arrive on site varies, for example they may arrive by public transport, on foot, mobility scooter or by private car. The distance they have to travel is also variable, with many patients come from outside the province or region, traveling many kilometres, while the others arrive from the local area. Apart from general information about public transport links and parking facilities (largely outside the hospital campus), the journey to and from the hospital is the responsibility of the patient.

Patients arrive at one of the 16 entrances and from here they are directed to their appointments largely through signage, with maps and directions available on the AOU-BO website. Some patients have difficulty in following map instructions, and for patients with disabilities or other access problems, navigation and access across the site to the correct location presents a complex challenge.

This is exacerbated by the frequency of construction and maintenance works which disrupt pathways and routes that may have become familiar to regular out-patients. These works also can render signage inaccurate, as routes may become impassable or unsafe for periods of time.

Access and mobility support is offered. There is a free shuttle around the border of the hospital campus. However, few out-patients take advantage of this service; it has an unreliable time-table, is limited to few hours both in the morning and in the afternoon and the fixed route means some out-patients have to go the long way around to reach their destination.

An out-patient support service is available to some patients with specific needs. However, the number of patients taking advantage of this support is a small proportion of those that could benefit. Wheelchairs can be available upon request at some entrances, and although helpful for some patients, this is unmanaged and leads to chairs going missing or being abandoned across the complex and at exits.

The picture that emerges from discussions with stakeholders is that already ill or disabled patients frequently find the journey from home to their appointments and then back home difficult and in some cases overwhelming to the point that they may not attend. This experience is echoed more widely. For example, a study made by the Royal College of Physicians found that 20% of pensioners who attended an outpatient appointment reported feeling worse afterwards because of the stress involved in the journey alone. [1]

"Feedback from some of our most vulnerable patients regarding the difficulty and stress involved in accessing and navigating the hospital grounds underlines how important it is for us to improve the current situation."

Cinzia Castellucci, Director of Care Management and Integrated Services,
AOU-BO

Missed appointments and late arrivals are a common problem of out-patient services, and clinicians report that patients often arrive tired and stressed. At AOU-BO the number of missed out-patient appointments is around 6% per year. While we cannot currently attribute this to particular causes, we can expect that improvements in the way out-patients are supported through their journey would reduce the number of missed appointments or late arrivals and enhance both the patient experience and the clinical outcomes.

Again, this problem seems a common experience among health providers:

"Missed appointments, stressed patients and late arrivals are a common problem of out-patient services. Each missed appointment costs not only the health of the patient but a significant waste of financial and clinical resources."

Marco Storchi, Director of Service Management and Innovation, AOU-BO

Our out-patients themselves are all individuals in a unique personal situation. They have different problems, level of mobility, access needs and preferences. Yet the current out-patient system lacks **personalisation**, with little pro-active intervention and insufficient attention given to their individual personal needs.

In summary, the current situation is unsatisfactory in terms of service provision and patient experience and has consequences for the efficient and effective delivery of healthcare services.

The potential for innovation

We believe that there are significant benefits to be gained from a smart transformation of the out-patient pathway and can see multiple opportunities to improve the overall experience for the patient, support the clinical process and patient outcomes as well as improve overall economic efficiency of the system.

And we are not alone in believing that the out-patient care pathway can be improved. In the introduction to a report from the Royal College of Physicians, Professor Stephen Powis, National medical director of NHS England said:

"While we know that patient satisfaction with clinicians remains high, it is also true that the various parts of the outpatient journey don't always deliver the best experience – the too-often uninformative appointment letters; the wait for the appointment; the journey, often at inconvenient times, which can be a major source of stress for older patients; the waiting around in clinic; and, in some cases, the repetition of the entire process when the referral was misplaced or a visit to another specialty is required. It's hard to imagine there is no room for improvement." [2]

Coordination of appointments could help to reduce the number of patient visits. In many cases, the patient is under the care of a single specialist department such as orthopaedics or renal services. But in other cases, notably in the case of elder care and patients with co-morbidities, patients may need to attend appointments in several different hospital departments on the same day or over the course of a few weeks or months.

"Currently appointments are not coordinated, requiring the patient to make multiple visits to the hospital or attend different appointments in different departments across the site, sometime with long waits between these appointments or running from one to the next, often delayed and at some distance."

Cinzia Castellucci, Director of Care Management and Integrated Services,
AOU-BO

Reducing the number of out-patients visits and movements would seem an obvious way to reduce pressure on the site and improve the situation for patients. In the framework of the national programme for innovation in the healthcare system, the Region Emilia-Romagna has introduced a regional norm for the use of telemedicine and other remote medical care called Home of Health (Casa della Salute). There is however in the current system very limited scope for AOU-BO to adopt out-patient care for patient at home at this time. [3] (Note: This limitation has been temporarily lifted during the COVID pandemic and it should be carefully re-considered in the post-pandemic re-establishment of a normal.)

There is scope however, where possible and beneficial to the patient, to find other ways to reduce the number of visits per out-patient for example by coordinating the multiple appointments of individual out-patient appointments.

Access and navigation solutions to support and facilitate both the travel to and from the hospital campus from home, support and manage their arrival on site and safe navigation to the 'right place at the right time' would bring improvements to support patient experience, clinical outcomes and also economic benefits.

The requirement

Having reflected on the current situation and consulted a range of different stakeholders, the requirement we have identified for an innovative solution to enable the integration, personalisation and optimisation of the whole out-patient journey, from appointments, to arrival on site and through departure.

A number of specific objectives have been identified as important in this transformation:

- Ensuring that out-patients arrive easily to the right place, at the right time
- Facilitating access and providing a smooth and stress-free journey to and from the appointment
- Reducing number of out-patient visits per patient while maintaining the same level of service
- Empower patients to manage their access to, and management of, out-patient services
- Be adaptable to meet the personal needs of the patient and ensuring that all patients have equal access to their appointment regardless of age or disability and other limiting factors
- Be able to adapt to a patient's changing needs

The solution should:

- Not compromise patient care
- Be user friendly and intuitive
- Provide feedback regarding on-site arrival status to clinicians
- Provide feedback on the success of the whole journey and facilitate patient and clinical feedback
- Learn and progressively improve over time
- Be in line with principles of environmental sustainability and meet the requirements for green hospitals
- Be 'pandemic ready'.

What can you do next?

Thank you for taking the time to read this Statement of Demand. AOU-BO is keen to identify and engage with other practitioners and healthcare providers that have the same or similar needs or may be aware of solutions before we start communicating with potential suppliers. At this stage, we have the flexibility to adapt the Statement of Demand to include particular needs that would increase the relevance for other interested healthcare customers.

Demonstrating that there is a wider potential market will better encourage potential suppliers to invest in developing innovative solutions that meet the unmet needs identified.

Your voice is vital to encourage suppliers to innovate to provide solutions. If you also believe that this is an unresolved issue or unmet need or would like to provide feedback, then please follow the link below. This will take you to a short survey which will help us to gather views and gauge interest.

[Click here to complete the survey.](#)

About the buyer

The University Hospital of Bologna (AOU-BO) is located in the heart of the city of Bologna. It is one of the largest in Italy, comprising 32 separate buildings (or pavilions) with over 1500 beds, with the distance from one end to the other of the hospital area being 1.8 km.

The hospital serves an inpatient population of 72,000 per year and handles emergencies not only from the region, but also from the entire nation. Large areas of the hospital are dedicated to outpatient services which delivers about four million clinical services per year. The hospital's annual management budget exceeds €. 500,000,000 including €. 250,000,000 for staff costs and more than €. 270,000,000 related to acquisitions of goods and services delivered by more than 1800 suppliers.

In 19 September 2020, AOU-BO was awarded of the nomination as "Institute of Hospitalisation and Care of Scientific Character – IRCCS", by a Decree of the Health Ministry, in recognition of the high scientific quality of its care.

References

1. Royal College of Physicians. Outpatients: the future – adding value through sustainability. London: RCP, 2018 - Review date: 2021 – Purpose of Outpatient Services, page 11
2. Royal College of Physicians. Outpatients: the future – adding value through sustainability. London: RCP, 2018 - Review date: 2021 – Foreword, page 1
3. <https://assr.regionemilia-romagna.it/attivita/innovazione-sanitaria>

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