CREATING AND IMPLEMENTING A SYSTEM FOR GEOLOCATION OF PHYSIOTHERAPY SERVICES

Alves Lopes A.[1], Borges P.[2], Almeida J.[2], Correia R.[2]

[1] Escola Superior de Saúde do Alcoitão, Santa Casa da Misericórdia de Lisboa, Portugal
[2] Faculdade de Medicina da Universidade do Porto, Serviço de Bioestatística e Informática Médica, Porto, Portugal

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Purpose

The aim of this work was to create a geolocation system for Physiotherapy services. This system will enable Physiotherapists, Physiotherapy clinics and users to locate different Physiotherapy services according to the geographical location. The specific objectives were to create a model of indexing information for Physiotherapists based on their geolocation, personal data, areas of intervention and service agreements; creation of a model of information search; and implementation of a web service that allows indexing and information search of Physiotherapy services for both users and clinicians, based on this various parameters.

Relevance

There are many needs among decision makers regarding the modelling and presentation of health information for better understanding of the phenomena and better management of all resources. The geolocation (Web-based mapping) stands out as an important tool that allows users through systems like Google Maps or Yahoo Maps to access, acknowledge and manage services or monitoring diseases or epidemics. In the context of health care these systems allow a better allocation of resources by health systems as well as a selection and more informed choice by the users.
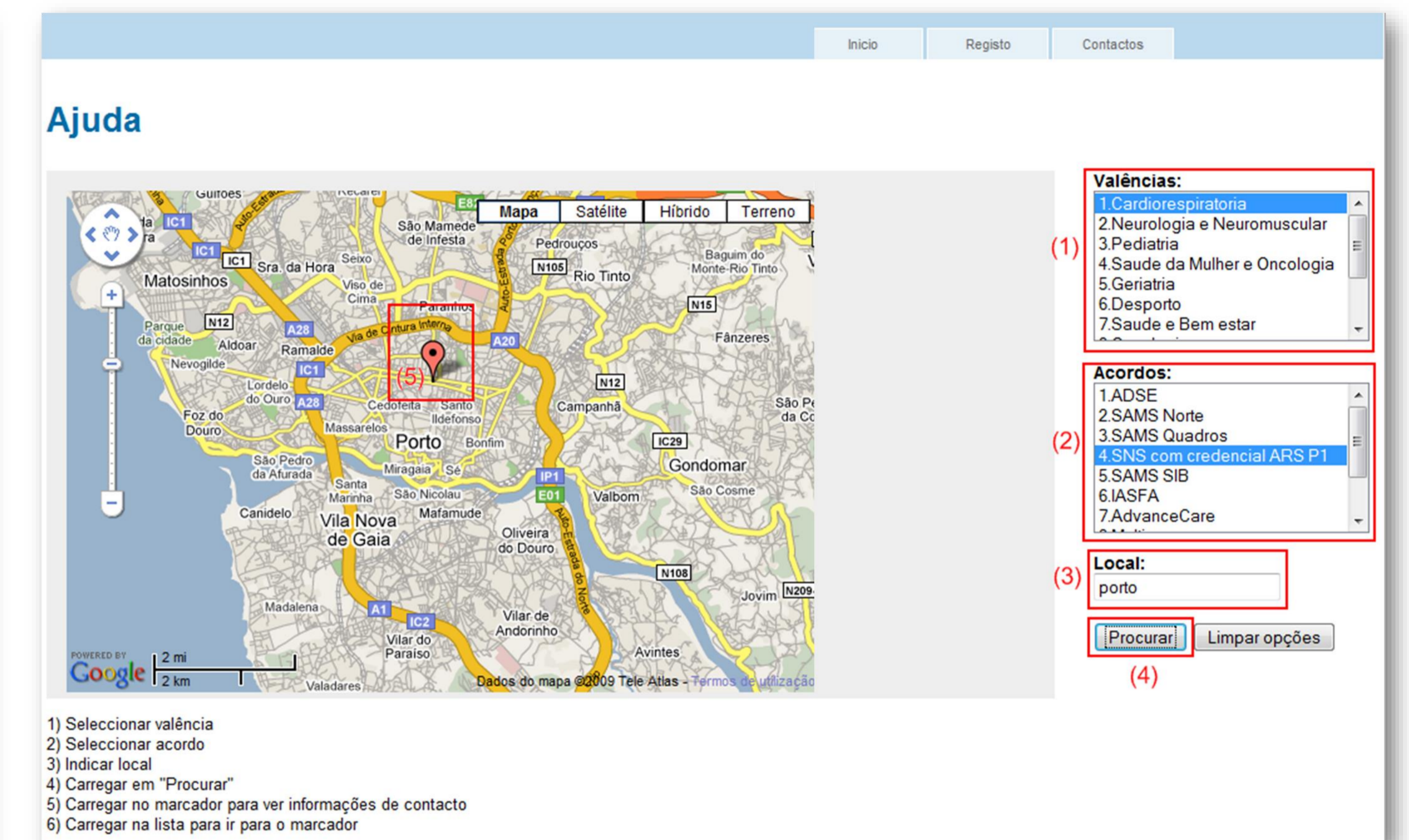
Description

The system methodology involved several stages: 1º Step: the list of requirements was create with the assistance of a group of Physiotherapists, it was determined the set of information considered useful to the end user when viewing the system, including: **General information** - Physiotherapist personal data, including relevant contacts; **Clinical Information** - refers to the types of available valances within Physiotherapy services; **Administrative Information** - refers to agreements and contracts with external entities. The definition of data took into account the end user, the vocabulary was adapted for Physiotherapists and users. 2º Step: Design, system architecture and the creation of the system interface, in both frontend and backend, we opted for the PHP language for the management system and MySQL for the database. 3º Step: The system was set up in a subdomain with its own web access in the last phase of implementation.
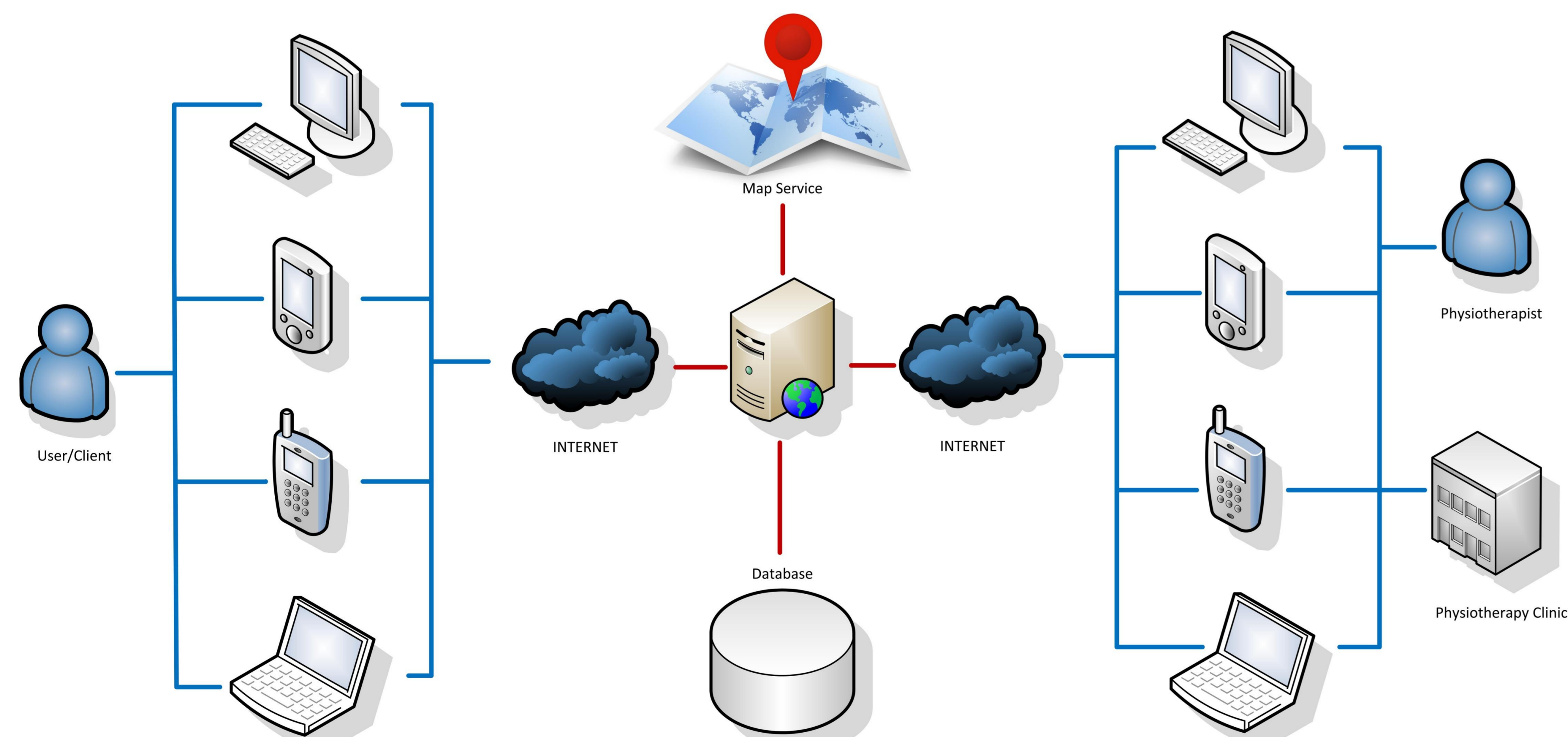
Interface

Users of the system were divided into two types: **User looking for Physiotherapy services** - this includes patients and other Physiotherapists who refer their clients to other services and **users seeking to advertise their Physiotherapy services** - this includes Physiotherapists and clinics wishing to register their information on the system aiming to facilitate contacts.

1) Seleccionar valência
2) Seleccionar acordo
3) Indicar local
4) Carregar em "Procurar"
5) Carregar no marcador para ver informações de contacto
6) Carregar na lista para ir para o marcador

Conclusions

Several benefits of using this system were described, including easy management and availability of geographical information for patients and other health professionals, that could promote a possible decrease in costs, time and resources saving, both human and economic in health services access.

Implications

Today, ICT are increasingly present in the practice of the Physiotherapist, covering new areas and putting at their disposal a wide range of solutions and tools for clinical practice. This system will enable Physiotherapists, Physiotherapy clinics and users to locate different Physiotherapy services, fostering an environment of increasingly shared and equal access to care facilities.

References

• Hughes, K., M.A. Bellis, and K. Tocque, Information and Communications Technologies in Public Health. Tackling Health & Digital Inequalities in the Information. 2002, Liverpool: John Moores University.
• Gao, S., et al., Towards Web-based representation and processing of health information. International Journal of Health Geographics, 2009. 8(1): p. 3.
• Purvis, M., J. Sambells, and C. Turner, Beginning Google Maps Applications with PHP and Ajax. 2006, APress, Berkeley, CA. 24. Gibson, R. and S. Erle, Google maps hacks. 2006: O'Reilly Media, Inc.

Contacts

António Alves Lopes
Email: aalopes@essa.pt
Address: Escola Superior de Saúde do Alcoitão
Rua Conde Barão. Alcoitão
2649-506 Alcabideche. Portugal