

A Platform Promoting Inter-Physician Interaction to Support the Management of Adverse Drug Reactions for CLL Patients

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Abstract. Adverse Drug Reactions (ADRs) cause significant impact for patients' Quality of Life (QoL) and vastly increase costs, especially regarding chronic diseases. To this end, we propose a platform that aims at supporting the management of patients with Chronic Lymphocytic Leukemia (CLL), via an eHealth platform facilitating inter-physician interaction and the provision of treatment consultation by a specialized ADR management team comprised of CLL experts.

Keywords. Chronic Lymphocytic Leukemia, adverse drug reaction, drug-drug interactions

1. Introduction

Chronic Lymphocytic Leukemia (CLL) is the most prevalent adult leukemia and typically occurs in adults with a median age of 72. Currently, treating CLL does not lead to a complete cure, hence a key goal in patient care has been improving patients' quality of life (QoL) [1]. CLL treatment and adverse drug reactions (ADRs) and drug-drug interactions (DDIs) impact the physical and emotional patient status, resulting in anxiety, depression and/or fear of death [2]. They also significantly impact patient therapy adherence and can lead to treatment stop [3], sometimes even without discussion with their physician [4].

2. Platform outline

Along these lines, we propose a platform that aims at supporting the management of CLL ADRs, emphasizing on peer-to-peer (P2P) communication between physicians and a specialized ADR "support" team. The main goals of the platform can be summarized as follows: (a) support regarding the management of ADRs during every-day clinical practice, (b) communication of best practices based on real-world experience and (c) assessment of the impact of the ADRs and CLL treatment as a whole on patient's QoL.

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To ensure acceptance, healthcare professionals (HCPs) are engaged in the various stages of the design and the development of such a platform. The proposed technical solution (Figure 1) will consist of three modules, i.e., the *Private Communication Channel (PCC)*, the *Public Forum (PF)*, and the *Analytics Module (AM)*.

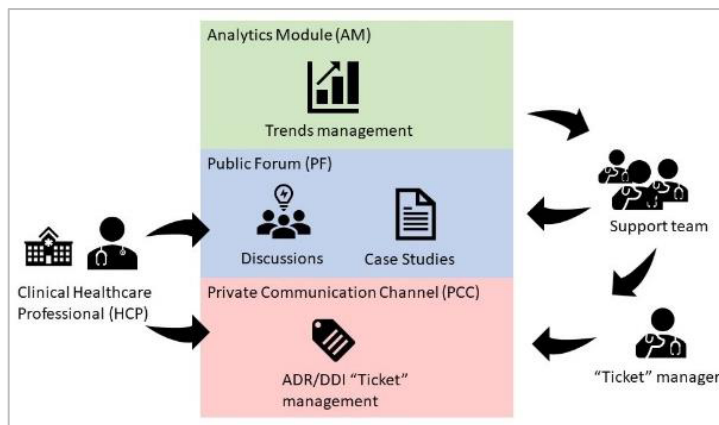


Figure 1. Proposed platform rationale.

The PCC enables direct and private communication between the physicians and the support team (ST). A Ticket Manager (TM) is notified as soon as a support “ticket” is created and he/she coordinates ST’s response to the specific ticket. The PF enables the publication of case studies and relevant guidelines by the ST and online discussion functionalities. The AM enables the monitoring of the platform’s use and the identification of important ADRs/DDIs and relevant trends.

3. Conclusions

Concluding, we believe that such a digital approach for CLL patient management could be significantly improved by eHealth interventions, emphasizing on ADR management.

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