EDITORIAL

Urology and Web predictive resources

Urología y recursos predictivos en la Web

Current medicine pursues a professional specialization and therapeutic individualization under the concept of individualized medicine, which is a personalized genomic medicine. However, our clinical practice is far from able to have an individualized genomic analysis of each patient and with enough evidence to provide personalized therapeutic advice.1

Overcoming the current limitations to this personalized medicine with a genetic basis is an important goal of this century. However, indirectly, we do have resources that can offer individualized medical advice to our patients. These resources come from the statistical and mathematical analyses of a large series of patients, their characteristics, evolution, and objectified results. We are referring to the complex multivariate analyses using more or less conventional techniques, such as logistic regression or Cox proportional hazards regression, or more advanced techniques, models based on artificial intelligence.2

These analyses are presented in the scientific and clinical universe as graphs, known as nomograms. However, these nomograms are still uncomfortable to apply in clinical practice and this has hindered their implementation. It would be ideal to have a tool capable of providing access and use of these predictive resources so that once the characteristics of our patient have been introduced, it would offer its individualized prediction that a certain event would occur. Actually, this tool exists, or rather ‘these tools exist’, a good number of them are available on-line pertaining to the area of urology, and also to the possible evolution and benign prostatic hyperplasia of a patient, survival of a graft after transplantation, or the chances of having a certain urological tumor, its extent or overall, cancer-specific and/or progression-free survival.

In this work we have made an effort to identify the predictive resources available on-line directly or indirectly related to the field of urology, verify their present functioning, index them according to the diseases that determine their prediction and grouping duplicities (sometimes two locations or uniform resource locator [URL] refer to the same predictive resource) and, finally, reference those publications in which they are based to build their predictive algorithm.

This work was performed to offer to the urological community an indexed collection of predictive resources and risk calculators available on line, with their respective access URLs, and to facilitate their implementation in clinical practice or as target of investigation favoring external validations in our field of different published predictive models. We identified a total of 78 resources of interest in the field of urology, which have been grouped according to their corresponding disease. We identified, according to what they predict, the URL where they are available and the supporting literature on which they are based if they have been detailed. They deal with several areas, including benign prostatic hyperplasia (BPH), incontinence, renal transplant, oncology (adrenal cancer, penile cancer, upper urinary tract cancer, bladder cancer, kidney cancer, and prostate cancer), as well as other tools or risk calculators.

This project has not undertaken a critical evaluation of the evidence supporting each predictive resource because a project of this magnitude would be unapproachable. However, an effort has been made to detail the scientific literature on which each of the resources is based, so that an individualized analysis of each of them can be performed, and even their external validations. All the on-line links have been verified for their proper functioning on June 11, 2013, as they were presented in the training course “Computing for Urologists-2013” which took place during the past LXXVIII National Urology Congress held from June 12 to June 15.
2013, in the city of Granada. We hope they are useful to the reader of Actas Urológicas Españolas.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at http://dx.doi.org/10.1016/j.acuroe.2014.02.020.

References


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