

Virtual patient searches oncology literature

The NexProfiler Health Care Professional Tools for Cancer

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Maybe a patient falls into the gray area between the guidelines, or the patient's family thinks grandma is too old to undergo a recommended treatment. It doesn't happen often, but sometimes it is useful to review the literature as it relates to a particular patient.

MedlinePlus is great for searching oncology literature on a global scale, but for a quick way to search literature applicable to a specific patient case, try the NexProfiler Treatment Option Tools for Cancer at www.cancerfacts.com.

What-if queries

In addition to standard searching by keyword, author, and journal title, the patented technology allows users to search based on modeling a patient case using clinical profile criteria. The database can create a virtual case model (VCM) for what-if scenarios.

To try the tools, go to the website and choose the Healthcare Professionals Tool tab at the top of the page to search literature by patient characteristics. After an anonymous registration, the tool allows viewers to enter search parameters in terms of the clinical presentation of a patient. The clinical parameters are then matched to a database of peer-reviewed clinical trial literature relevant to the VCM based on the inclusion and exclusion criteria of each trial.

As an example, select the prostate cancer tool, and use a case model of an 84-year-old, newly diagnosed man with clinical stage T3a prostate cancer, a PSA of

radiation, cryotherapy, and watchful waiting.

The results show a summary of all VCM search criteria displayed in a text window near the results menu for quick reference. Below that are two report summaries.

The Citation Results Report lists all of the studies for which inclusion criteria matched the VCM data entered on the search page and all of the studies that contained the word(s) entered in the keyword search. Studies whose inclusion criteria matched the VCM data entered on the Search page will display a VCM Match icon.

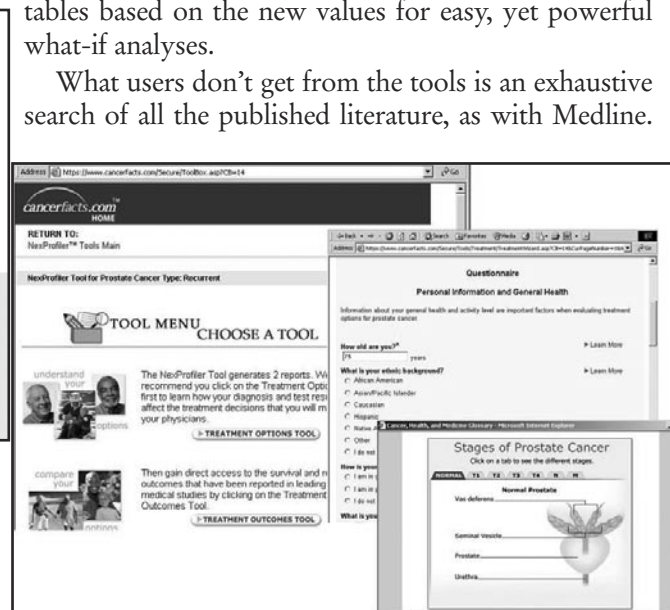
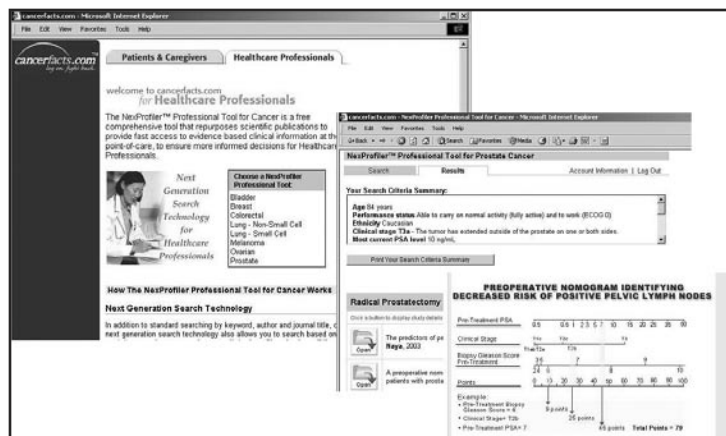
Alongside each study citation is a folder button searchers click on to open a report on the individual study cited. These study reports include an abstract of each paper and tables and graphs of the study results, showing where the VCM data entered on the search page matched the study inclusion criteria, with statistics on the patient population investigated. The abstract of each study is written in lay language so physicians can give the summary of the study to their patients.

The Graph Results by Treatment Report summarizes studies, categorized by treatment. Only studies for which inclusion criteria matched the VCM data entered on the Search page are displayed in this report. This report also contains buttons to open Randomized Treatment Comparison Studies. These study reports are shown for randomized clinical studies that compared two or more treatments.

Change the virtual case model input parameters and view how the key algorithms produce new results. With each change, the report will recalculate the graphs and tables based on the new values for easy, yet powerful what-if analyses.

What users don't get from the tools is an exhaustive search of all the published literature, as with Medline.

FIG. 1



10 ng/mL, and a fully active performance status. When you click Submit, the search results produce more than 35 papers grouped by treatment mode, ranging from radical prostatectomy and brachytherapy to conformal beam

Instead, the tool searches a database of 1,500 key papers selected by the experts in the field who serve as the medical editorial advisory board to NexCura Inc., the company behind the NexProfiler tools. NexCura's medical editorial advisory board includes Drs. Maurie Markman, Robert Ozols, Eli Glatstein, James Tate Thigpen, Peter Grimm, and others who know the literature pertaining to their own specialties and have contributed substantially to it.

Database development

The medical editorial board determines which treatments will be represented in each NexProfiler Treatment Option Tool. They also provide references for research papers they believe fulfill NexCura's criteria for inclusion. The company's staff of clinical specialists continually monitors new researches to submit to the board for inclusion or rejection.

Members of the MEB then review all papers for a specific tool and make a final determination regarding the acceptability of the material. Only papers that report results associated with, or relevant to, standard treatments are included. Data included in the database must be sufficiently recent to ensure the treatments represented meet current treatment guidelines.

To be included in the database the research study must:

- have landmark significance in the medical community.
- have calculated outputs (for example, actuarial probabilities) based on quantifiable factors measured in the study population.
- have sufficient study populations large enough

to ensure statistical significance for the primary study endpoints, wherever possible.

- be multicenter, randomized trials, or if a single-institution and/or nonrandomized trial must contribute to a comprehensive literature review.

The extensive NexCura clinical databases are continually updated as new research is published, so searchers can be confident they are accessing current and relevant data.

Safe and secure

Although the service is free, a login is required to provide secure, encrypted data transfer of information used to create a VCM and allow users to save searches for future use. The information entered is safe and secure, maintained with Verisign verified secure servers. Personal information, such as the email address used to sign in and zip code, might be used. Another feature is a password hint phrase to verify a user's identity in the event of a forgotten password. No personal information is ever given to third parties without expressed permission. Any information provided to NexCura is subject to NexCura's privacy policy, which is compliant with the HON Code Principles of the Health on the Net Foundation. Medical information is only used in aggregate form.

NexCura won't fill users' inboxes with advertising. Personal information might be used to contact visitors if they request or have granted permission for NexCura to do so for market or scientific research. Direct-to-physician messaging services are also available, but only if granted permission.