Small Number of Glaucoma Patients Account for the Largest Costs

A small number of open-angle glaucoma (OAG) patients make up a large amount of all glaucoma-related costs: The costliest 5% of patients receiving glaucoma-related care were responsible for a whopping $10,202,871—almost 25% of all costs, according to a study published in September's *American Journal of Ophthalmology*.

Researchers at the University of Michigan Kellogg Eye Center reviewed claims data from 19,927 newly diagnosed OAG patients enrolled in a large U.S. managed care network to identify glaucoma-related charges for all OAG patients from 2001 to 2009.

The researchers identified risk factors associated with the costliest patients, including:

- Younger age.
- Living in the northeastern United States.
- Undergoing cataract surgery.
- Having other eye conditions.

They also identified a "spike" in the mean costs. Within two years of diagnosis, 37.8% of all glaucoma-related charges were incurred in the first six months.

Identifying these patterns and patient characteristics is just the first step in finding ways to reduce the disease burden and costs associated with the care of the patients, the study authors concluded.

In the meantime, "the importance of continuing education cannot be overemphasized," says co-author David Musch, Ph.D., M.P.H. "Keeping current on results from key clinical trials by reading the peer-reviewed literature and not just relying on advertisements is crucial. All eye care providers, whether ophthalmologists or optometrists, need to base their treatment decisions on evidence that treatment is necessary."

Stein JD, Niziol LM, Musch DC, et al. Longitudinal trends in resource use in an incident cohort of open-angle glaucoma patients: resource use in open-angle glaucoma. Am J Ophthalmol. Sep 2012;154(3):452-459.

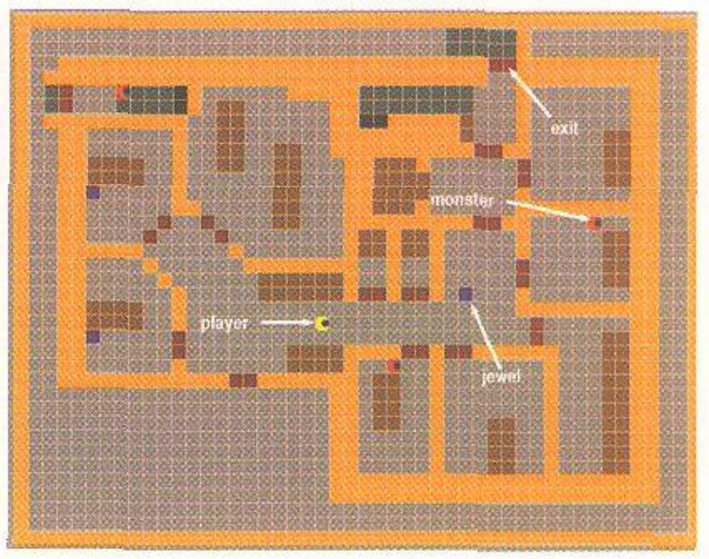
'Video' Game Helps Blind Learn to Navigate Through Real World

A new "video" game—actually, an audio game—has been successful in teaching blind players navigation skills using only audio cues.

Lotfi B. Merabet, O.D., Ph.D., M.P.H., and Jaime Sanchez, Ph.D., of Harvard's Massachusetts Eye and Ear Infirmary, led the research team that developed the Audio-based Environment Simulator. This virtual reality "soundscape" environment, with all the challenges of a video game, uses audio-based cues to teach blind users about the layout of a previously unfamiliar building.

Study participants weren't aware of the software's overall purpose. But, researchers say, they were able to acquire relevant information about the spatial layout and transfer those navigational skills to a large-scale, three-dimensional, real-world indoor navigation task.

Wearing headphones, a blind study participant (right) plays the game while an investigator follows her progress.



In gamer mode, the player uses auditory cues to move around, locate hidden gems and avoid being caught by monsters.

Merabet LB, Connors EC, Halko MA, Sánchez J. Teaching the blind to find their way by playing video games. PLoS One. 2012;7(9):e44958. Epub 2012 Sep 19.