

ASSORT: The Statistical Team for Your Surgical Practice

ET evaluates this surgical-outcomes software that combines the power of an in-house statistician, graphics analyst and surgical planning consultant in one package.

BY MICHAEL L. GILBERT, M.D.

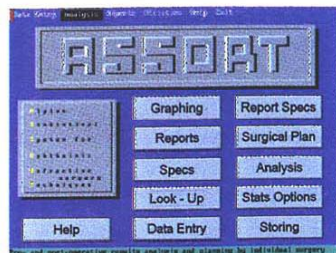
- This award-winning database application can be easily and powerfully assimilated into any ophthalmic practice.

- It includes easily followed data-entry screens that can readily be mastered by office staff.

- Users are granted incredible latitude and flexibility with the software.



Noel Alpins, M.D. of Melbourne, Australia, created ASSORT to fill a statistical void in his practice.

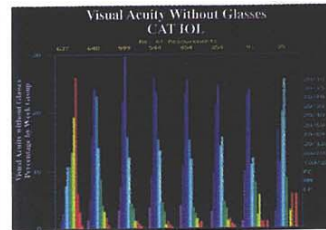


The ASSORT menu screen suggests the breadth of this valuable surgical outcomes-analysis software package.

ASSORT is a new ophthalmic surgical outcomes and management software package with incredible depth and breadth, designed to organize, analyze and report your specific results for all surgical eye procedures you perform. This is an elegant software program whose time has come in ophthalmology. Any ophthalmic surgeon - whether academic or private, group or solo practice - has periodic need to review patient results whether for presentation of data, internal quality assurance or for a clear basis to choose one nuance in surgical technique over another. The importance and utility of ASSORT will be clear immediately for following surgical patients whether for cataracts or glaucoma, radial keratotomy or photorefractive keratotomy. Until ASSORT, no serious, prepackaged, customized, statistical-analysis and graphical tool has been available to the surgical ophthalmologist.

If you have not yet been asked by contracting payors or networks for outcomes data reviewing your surgical procedures, the question is soon coming. Rightly or wrongly, payors appear to have the current notion that each ophthalmologist has a statistician in his or her employ who can provide tailored costless data for their perusal and approval.

All of us compare our results to published reports in the literature. Many of us follow our surgeries by entering selected preop and postop parameters in a computerized relational database for review and feedback. None of us has approached this information challenge like Dr. Noel Alpins, a surgical ophthalmologist in Melbourne, Australia, who wanted more. What began as a project to fill a statistical void in his own surgical practice has grown into a team of consultants and programmers who have created ASSORT as an award-winning DOS and Paradox-based database application that can be



One of many possible graphical studies, this chart shows visual acuity without glasses following cataract surgery. Each bar represents the percentage of patients achieving the indicated level of acuity.

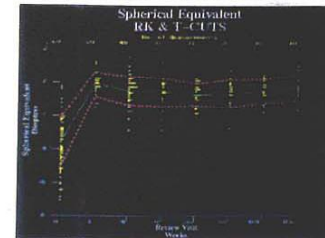
easily and powerfully assimilated into any ophthalmic practice, with potentially incredible results.

A BRIEF LOOK AT FEATURES

ASSORT includes easily followed data-entry screens that can readily be mastered by office staff. Once data has been recorded, the program offers comprehensive tracking and analysis of all surgical parameters. Customized fields allow recording of surgical details such as incision length and placement or implanted lens type, as well as intraoperative observations or complications of any degree. Acuity, keratometry and refraction as well as most imaginable, and any possible, ophthalmic parameters are followed over time. Provision is also made for incorporating serial corneal topography maps. Following each postoperative entry, ASSORT recalculates surgically-induced astigmatism, acuity, IOP and numerous other parameters and categorizes each according to desired reporting-frequency intervals that may be customized for any operation.

The analytical features of ASSORT are as rich as any sophisticated relational database with incorporated statistical-analysis features could hope to provide. This potent tool allows the facile reporting of uncorrected acuity, best-corrected acuity, intraocular pressure, number of glaucoma medications and other

parameters over time and for instant review. More importantly, you have complete latitude for query specifications to answer customized questions with ease. Multiple selection screens offer sorting options to handle specifications ranging from surgeon or medications used to



This chart shows spherical equivalent values over time, following refractive keratotomy (RK) surgery.

implant type, surgical instrument employed or even postoperative complaint. The user is granted incredible latitude and flexibility.

ASSORT provides a default analysis for numerical data calculating mean and standard deviation. Where comparable fields are selected, an unpaired T-test is performed to compare sets of selected data. Alternative statistics include frequency analysis. These resources allow viewing of individual patient records or the selection and grouping of patients in order to carefully compare a population of patients to a control group. Outcomes results may be tailored to segregate and filter out cases judged to be more difficult, allowing a more malleable, balanced and comparable presentation of the data.

OTHER HIGHLIGHTS

ASSORT has depth and flexibility that can barely be introduced in brief. A treatment module that offers a vector analysis of astigmatism by keratometry, topography and refraction is worthy of a further in-depth assessment alone. (Watch for this in a future ET issue!) This module takes a scholarly look at vector analysis of astigmatism and creates a surgeon-controlled tool for understanding and surgically treating astigmatism. The "Help" files are a veritable reference resource for both ASSORT operation and the thorough study of vector analysis of astigmatism.

Output of data analysis includes full tabular reports, of course. The graphical analysis section offers a useful breadth of tools for surgical outcome study including scatter plots and bar graphs, as well as longitudinal graphing of means and standard deviations. As a software package, Dr. Alpins has coordinated the creation of a user-friendly and flexible, yet incredibly powerful analytical tool for the ophthalmic practice of today and tomorrow. Whether for your outcomes data, quality analysis reports or surgical planning in glaucoma, cataracts or refractive surgery, this software is worthy of your consideration. ©

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