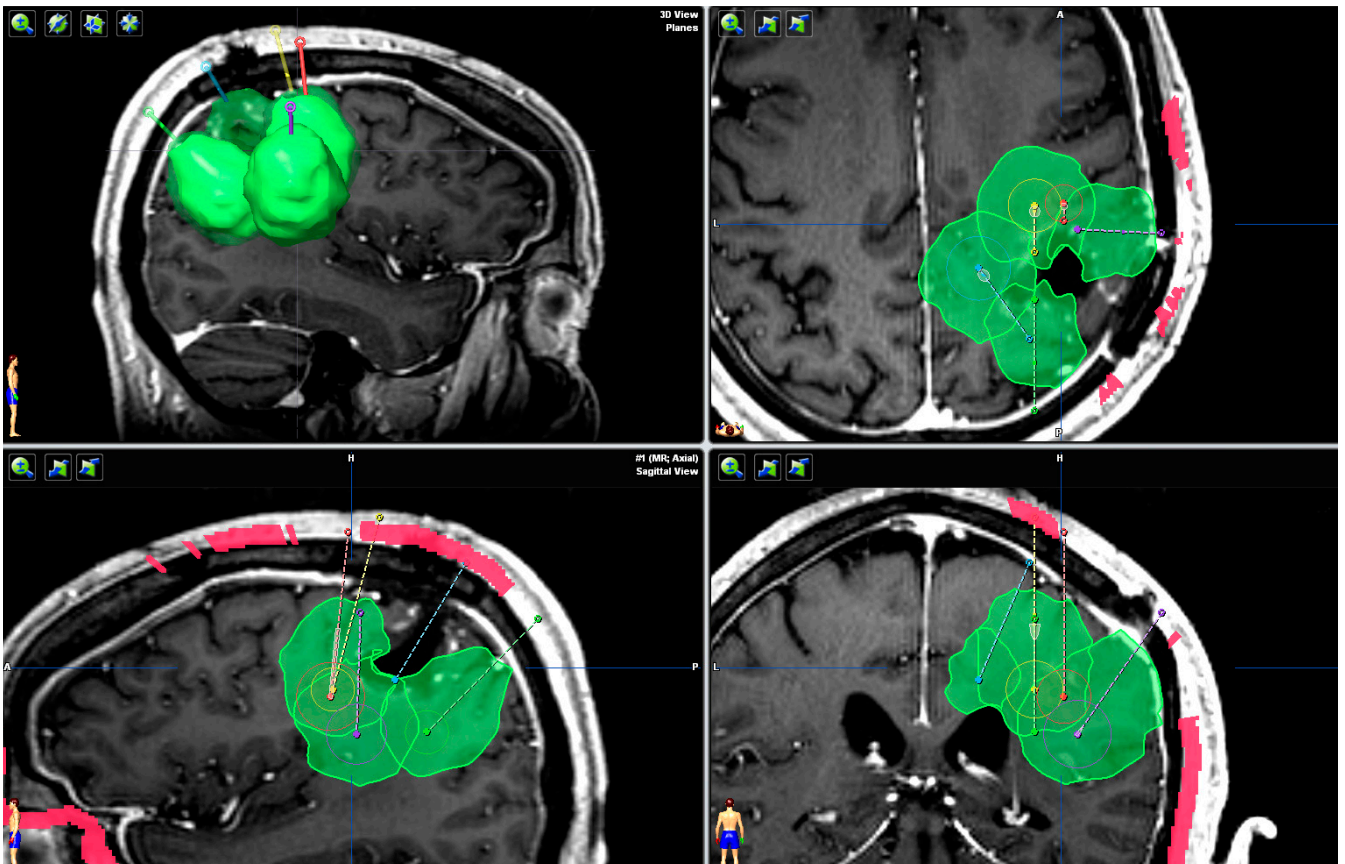


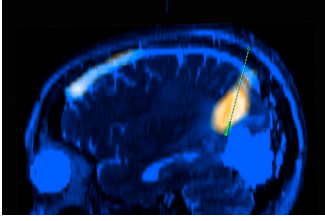
# OPTIMIZING DIRECT DRUG DELIVERY

iPlan Flow



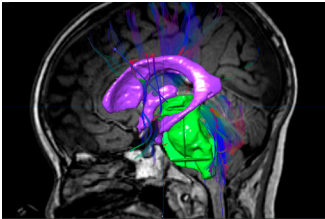
Designed for planning of advanced and customizable drug delivery procedures, iPlan® Flow software provides features to determine optimized trajectories and infusion parameters based on patient-specific image data. Considering individual patient pathology in this very specific context contributes to the optimization of numerous aspects of treatment.

- › Minimization of leakage into subarachnoid or intraventricular spaces
- › Simulation of estimated fluid distribution
- › Maximization of infusate distribution
- › Optimization of target coverage
- › Enabling of precise catheter planning
- › Automatic identification of risk structures
- › Definition of multiple target areas in 3D
- › Support of framebased or navigated procedures



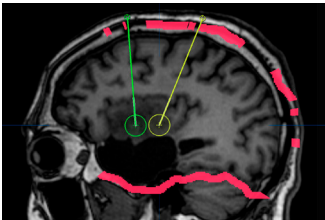
### AUTOMATIC IMAGE FUSION

iPlan® Automatic Image Fusion supports multiple common imaging modalities to enable simultaneous use of available anatomical and functional data. Each object subsequently created on a data set becomes visible on all fused image data.



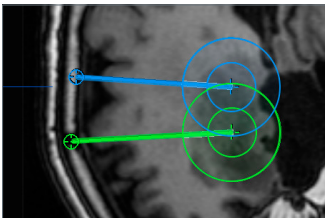
### COMPREHENSIVE TARGET PLANNING

iPlan Flow automatically defines margins around the tumor or resection cavity. Combined with automatically segmented deep brain structures and fiber tracts, clinically relevant information is accumulated in one plan. This information leads to comprehensive visualization of complex anatomy that helps the user to locate clinical targets and avoid critical structures.



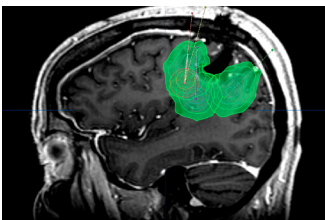
### GUIDED ENTRY POINT PLANNING

The sulcus delineation feature automatically segments cerebrospinal fluid spaces as they are potential leakage pathways. Results are displayed as an overlay onto anatomical images and help the user to avoid these areas during the planning process. In addition, iPlan Flow suggests entry point areas for a given target point, resulting in planned trajectories with reduced risk of drug leakage.



### GUIDED CATHETER PLANNING

Catheter planning guidelines indicate potential backflow and other drug leakage pathways around the catheter tip in order to maximize infusate distribution and time saving when compared to traditional manual distance measurement. Three-dimensional guidelines actively notify the user if catheter tips are planned too close to the pial surface, fluid filled cavities or other catheters.



### 3D DISTRIBUTION SIMULATION

The likely distribution of infusate for a given catheter position is predicted in 3D based on patient-specific information and mathematical modeling. This provides useful information regarding location, volume and shape of distribution. Automatic coverage calculation helps to assess sufficiency of target volume coverage with the infusate.