Objective: Today we have quite a lot of methods of examination, which include computer and MRI, ultrasound with three-dimensional image reconstruction, etc. However, there are cases when it is difficult to isolate a tumor from an organ and calculate its volume characteristics, for example, tumor in the abdomen. So, it is important to carry out analytical research of modern computer software ability and to find the optimal one.

Methods: The following programs were used to compare the results of studies (CT and MRI reconstruction): Vitrea2 and DoctorCT-Slicer. Of more than 300 patients, mostly with kidney disease, who underwent examination and processing of the results using these programs in the CCC, a random sample of 120 people, formed three comparison groups. 60 clinical cases were treated using the program Vitrea2 and the results of the 60 clinical cases were processed through our AT the HoloDoctor. Results: The analytical research of general parameters of 3 software: HoloDoctor, DoctorCT-Slicer, Vitrea2 was conducted. 2 real clinical cases were reviewed by using augmented reality glasses - HoloLens.

Conclusion: The loading of 3D models of the organ or organ systems with the presence of a simulation module to DoctorCT-Slicer will allow preoperative simulation actions including the use of holographic reality glasses. The program DoctorCT-Slicer also provides the integration of 3D reconstructions of bodies in the simulation complex HoloDoctor with the use of holographic reality points to simulate surgery. Copyright (C) 2013 - All Rights Reserved - Pharmacophore