

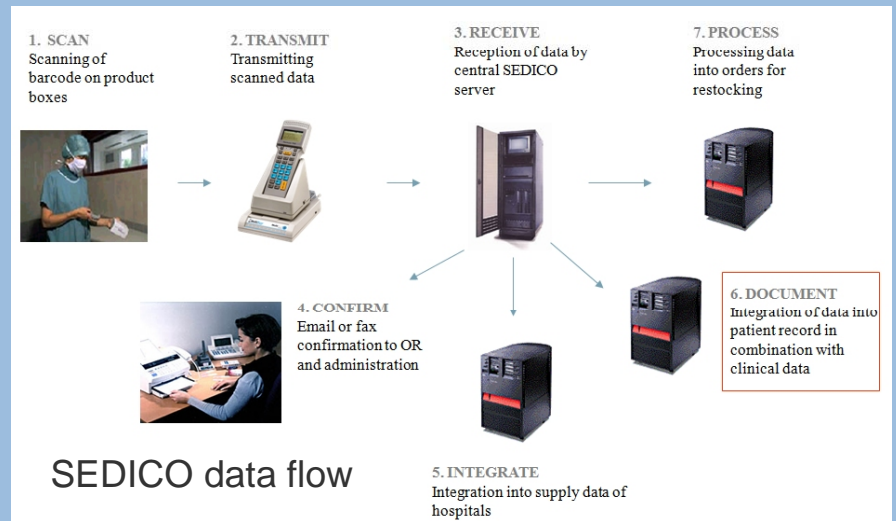
Decreasing medical documentation workload with increased implant description precision and patient safety

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Background: The MEMdoc documentation portal of the University of Bern and its precursors are traditionally focusing on postmarket surveillance of medical implants. In the earlier days the description of the respective implant or implant parts and its characteristics (e.g. supplier, material, size) had to be specified as part of the questionnaires with numerous answers that still not sufficed for a doubt free specification of the device.

A new innovation: With the invention of SEDICO (secure data integration concept), a barcode based implant reordering system for the implant suppliers, a new possibility for an increased precision in implant documentation became possible; this without any time efforts for the documenting surgeons since the barcode scanning process is in the hands of the operating room staff, mostly the head nurse. Thanks to a unique interface between MEMdoc and SEDICO, the article and lot

numbers of the implant(s) are integrated into the electronic documentation forms by means of linking parameters like medical record number of patient, OR date and location (e.g. right hip, left hip). The article and lot numbers are the most precise implant description possible and in case of device recall scenarios and the evtl. affected patients can easily be identified with an electronic search in the database.



The screenshot shows the MEMDOC web interface. Key sections include:

- ENTER DATA:** Patient information for Hans Mustermann, M.R.N.: 0000001, male, 01.11.1911.
- CLINICAL TOOLS:** Includes a 'Selected Implants' table with columns for Supplier, Article No., Lot Number, and Article Description. It also features an 'Update SEDICO' button.
- ADMIN TOOLS:** Includes a 'Search component catalog' and 'Enter other component data' sections with input fields for Supplier, Article No., Article description, and Lot Nr.

Drawbacks and solutions: Although SEDICO is an open industry partner platform not all suppliers can or want to participate in this system. Hence, their electronic product catalogues were additionally implemented on MEMdoc as a “second best” solution since they contain all relevant information with the exception of the lot number. With search tools the user can select the implanted device and add the lot number manually, if desired. Finally, a third option consists in a completely manual entry of the implant (supplier name, article description, article number, lot number) if neither SEDICO is used nor the respective supplier catalogue is available on MEMdoc.

1. Integration of implant information into clinical documentation form.
2. SEDICO section for integration of information from SEDICO server
3. Link to personal implant notebook.
4. Manual search in supplier catalogues.
5. Manual entry of implants that are not in catalogues or personal notebook