Integrating and scaling through CDA:
making specialist and longitudinal records interoperable

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Electronic health records (EHRs) today are an essential element of good medical practice but specialists do not always consider them adequate for documenting the care they provide. So it is that we are seeing an increasing number of software programs narrowly targeted to medical specialties. These specialty focused programs are highly useful tools for the management of patients. However, these systems behave like information islands, generating data that is not subsequently integrated into the patient’s EHR. One solution to this problem involves interoperability through CDA documents that allows specialists to continue maintaining patient records in disease-oriented software, incorporating the information produced by this system into patient EHRs at an institutional level.

The Hospital Italiano de Buenos Aires (HIBA) is a tertiary-care hospital which currently has 33 hemodialysis stations. Fresenius Medical Care Argentina provides renal replacement therapy for patients in the modalities of hemodialysis and peritoneal dialysis. The focus of the project was records interoperability for patients receiving dialysis treatment within HIBA but with clinical records maintained in Fresenius soft. (EuClid).

From March to October of 2014, 4,734 CDAs documents were processed belonging to 281 different patients. Completeness: Of a total of 281 patients with dialysis records, 97.15% were found to have problem-free longitudinal EHRs. Of the 8 for whom no record was initially found, 2 were longtime patients who, despite being legally of age were still being treated by the pediatric department. The other 6 patients’ documents were not sent due to inconsistencies in their identification. For the analysis of consistency by document type, 20 patients were sampled. 100% had admission notes. Monthly progress reports were complete for 18 patients, while 2 lacked the report due to invalid XML characters. Individual sessions, nearly 93% were accounted because of a 4-day period during which no CDAs were sent due to firewall rules.

This architecture allows the data recorded by specialists to flow transparently to the different levels of data requirements, feeding into the EuClID repository for worldwide, national or regional analysis. It contains the details of the observations and evolution of the disease that specialists need to provide the correct treatment and also includes a summary of the patient’s EHR.