



# The Kidney transplantation application (KiTapp): A visualization and contextualization tool in a kidney graft patients' cohort

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# The Kidney transplantation application (KiTapp): A visualization and contextualization tool in a kidney graft patients' cohort.

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## Kidney Transplantation

- Treatment of choice for ESRD (End-stage renal disease)
- Follow-up reveals many complications
- Rejection, cancer...

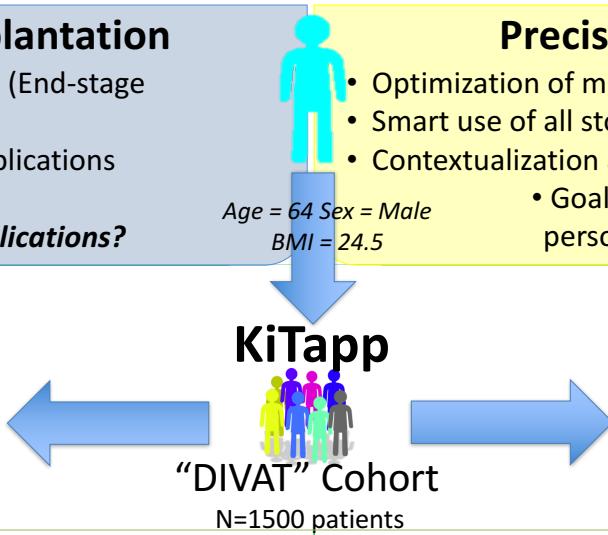
*Can we anticipate complications?*

## Precision Medicine

- Optimization of medical care for a specific patient
- Smart use of all stored data
- Contextualization amongst his/her peers
- Goal of targeted therapies – personalized monitoring

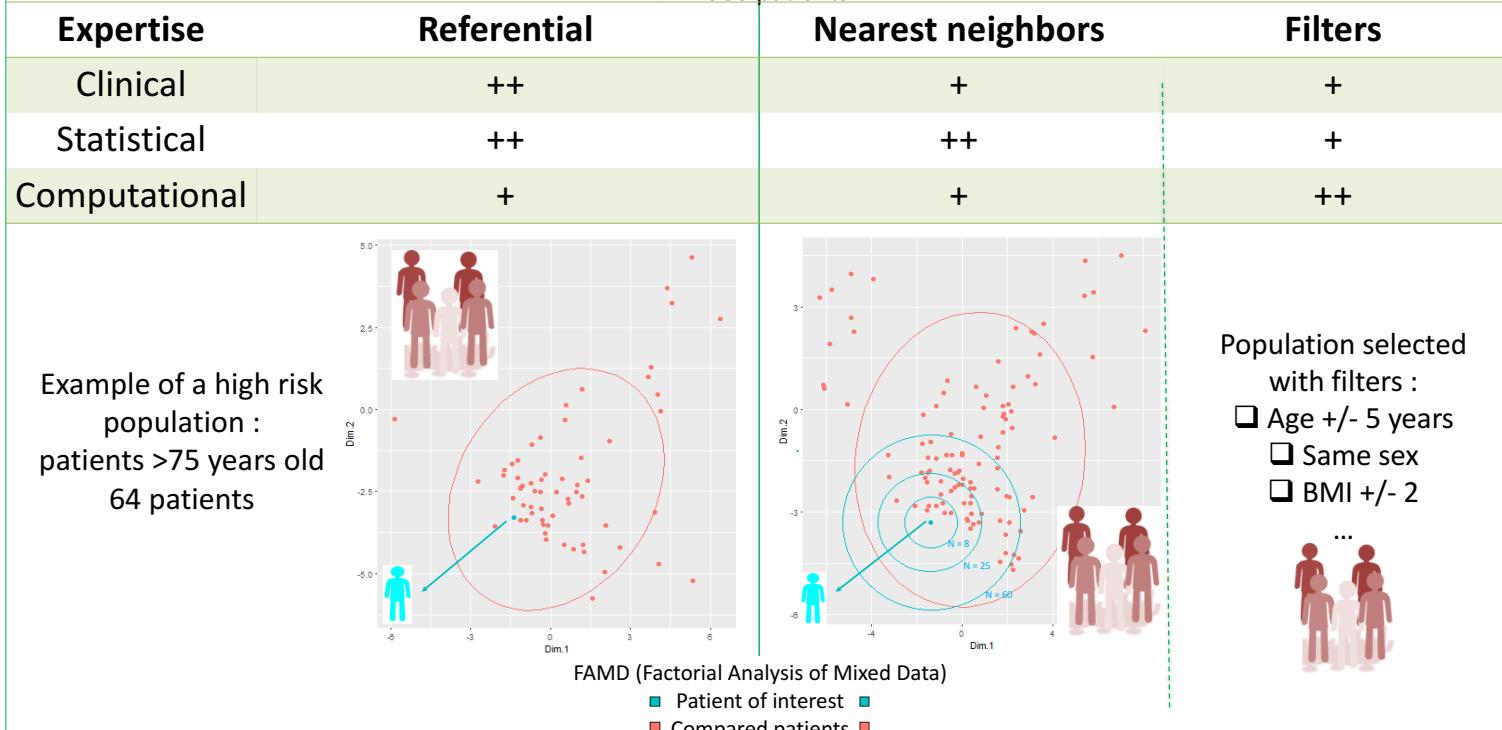
## Referential contextualization :

Comparison with predefined groups



## Populational contextualization :

Selection by filters or nearest neighbors

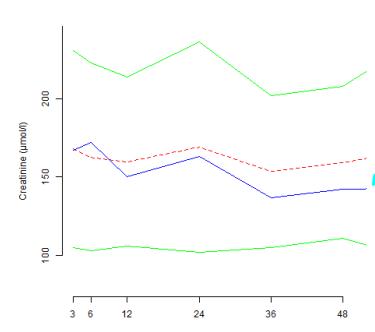
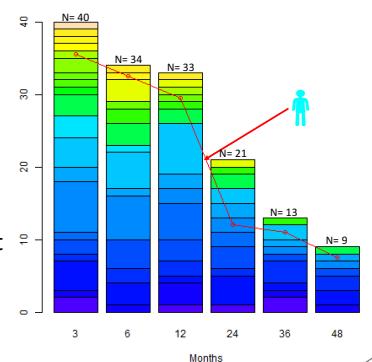


Distribution of Tacrolimus doses on a period of 4 years for the old population.

Our patient

Low High

Not all individuals have data at each visit.



Creatinine overtime for the patient of interest compared to the selected population.

Patient  
Mean  
Standard deviation

**Clinical ambition:** support clinical decision by facilitating access to big data in a actionable manner  
**Technological ambition:** software and algorithms developed here could be applicable to various chronic medical conditions