

Clan Decomposition of Gaifman Graphs as a Graphical Tool

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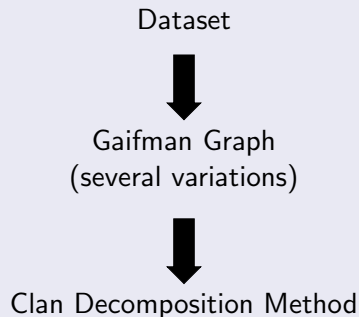
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- 1 Procedure
- 2 Hospitalization Dataset
- 3 Clan Decomposition Method
- 4 Hospitalization Clan Decomposition
- 5 Conclusions

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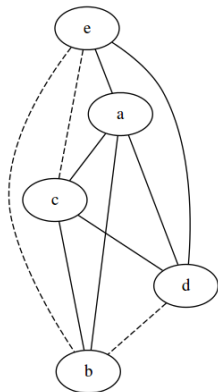
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Hospitalization Dataset

| | | | | | |
|--------|-----------------------------------------|--------|--------------------------------------|--------|------------------------------------|
| 428.0 | INSUFICIENCIA CARDIACA CONGESTIVA IN | 427.31 | FIBRIL.LACIO AURICULAR | 276.1 | HIPOSMOLARITAT I/O HIPONATREMIA; |
| 381.10 | OTITIS MITJANA SEROSA CRONICA, SIMPLE | | | | |
| 784.3 | AFASIA | 401.9 | HIPERTENSIO ESSENCIAL INESPECIFICADA | 519.8 | ALTRES MALALTIES D'APARELL RESPIRA |
| 599.0 | INFECCIO VIES URINARIES, LOCALITZACIO N | 041.9 | INFECCIO BACTERIANA INESPECIFICADA | 873.42 | FERIDA OBERTA DE FRONT, NO COMPL |
| 584.9 | FALLIDA RENAL AGUDA NO ESPECIFICADA | 564.00 | RESTRENYIMENT, INESPECIFICAT | 724.2 | LUMBAGO; DOLOR LUMBAR; SINDROM |
| 041.6 | INFECCIO PER PROTEUS (MIRABILIS)(MORC | 041.49 | ALTRES INFECCIONS PER ESCHERICHIA C | 041.85 | INFECCIO BACTERIANA PER ALTRES OR |
| 511.9 | EMBASSAMENT PLEURAL INESP.; EMBASSA | 414.8 | ALTRES FORMES ESPECIF.DE CARDIOP.IS | 427.31 | FIBRIL.LACIO AURICULAR |
| 569.89 | ALTR.TRAST.INTESTINALS ESPECIF.; ENTERC | 285.9 | ANEMIA INESPECIFICADA; ANEMIA: NOS | 403.90 | NEFROPATIA HIPERTENSIVA INESP. S/M |
| 518.84 | FALLIDA RESPIRATORIA AGUDA I CRONICA | 276.2 | ACIDOSI; ACIDOSI: NOS, LACTICA, META | 401.9 | HIPERTENSIO ESSENCIAL INESPECIFICA |
| 519.8 | ALTRES MALALTIES D'APARELL RESPIRATOR | | | | |
| V45.71 | ABSENCIA ADQUIRIDA DE MAMA I MUGRO | 305.1 | TRASTORN PER US DE TABAC; DEPENDEN | 305.02 | ABUS D'ALCOHOL, SENSE DEPENDENCIA |
| 276.0 | HIPEROSMOLARITAT I/O HIPERNATREMIA; | 780.39 | ALTRES CONVULSIONS | 580.89 | GLOMERULONEFRITIS AG.AMB ALTRES |
| 584.9 | FALLIDA RENAL AGUDA NO ESPECIFICADA | 458.9 | HIPOTENSIO INESPECIFICADA; HIPOTEN | 427.31 | FIBRIL.LACIO AURICULAR |
| 276.7 | HIPERPOTASSEMIA; HIPERKALEMIA; POTAS | 276.8 | HIPOPOTASSEMIA; DEFICIT POTASSI [K]; | | |
| 414.01 | ATEROSCLEROSI D'ARTERIA CORONARIA N. | 584.9 | FALLIDA RENAL AGUDA NO ESPECIFICADA | 998.59 | ALTRA INFECCIO POSTOPERATORIA |
| 403.90 | NEFROPATIA HIPERTENSIVA INESP. S/MEN | 496 | OBSTRUCCIO CRONICA VIES AERIES, NCC | 585.9 | INSUFICIENCIA RENAL CRONICA NO ES |
| 751.3 | MAL.DE HIRSCHPRUNG I ALTR.TRAST.FUNC | 999.82 | EXTRAVASACIO D'UN ALTRE AGENT VESI | | |
| 782.3 | EDEMA; ANASARCA; HIDROPESIA; EDEMA | 1356.2 | NEUROPATIA SENSORIAL HEREDITARIA | 719.7 | DIFICULTAT DE CAMINAR |

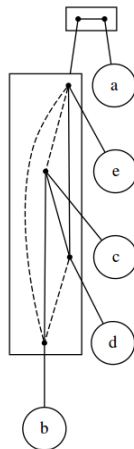
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Clan Decomposition Method



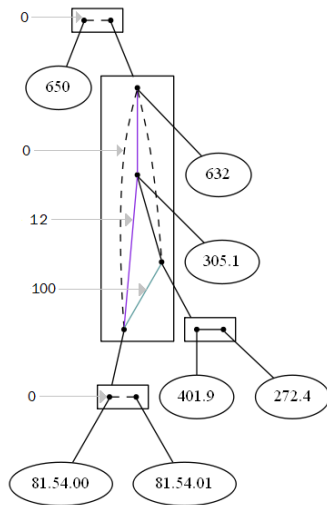
Patients

| | | | |
|-----|---|---|---|
| p1: | a | b | c |
| p2: | a | d | e |
| p3: | a | c | d |



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Hospitalization Clan Decomposition



- 650 Normal delivery.
- 632 Missed abortion.
- 305.1 Tobacco use disorder.
- 401.9 Unspecified essential hypertension.
- 272.4 Other and unspecified hyperlipidemia.

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Purpose

To be an exploratory tool from data.

After the analysis...

- To have a general view about co-occurring diagnostics.
- To complement statistical approaches.

THANK YOU!