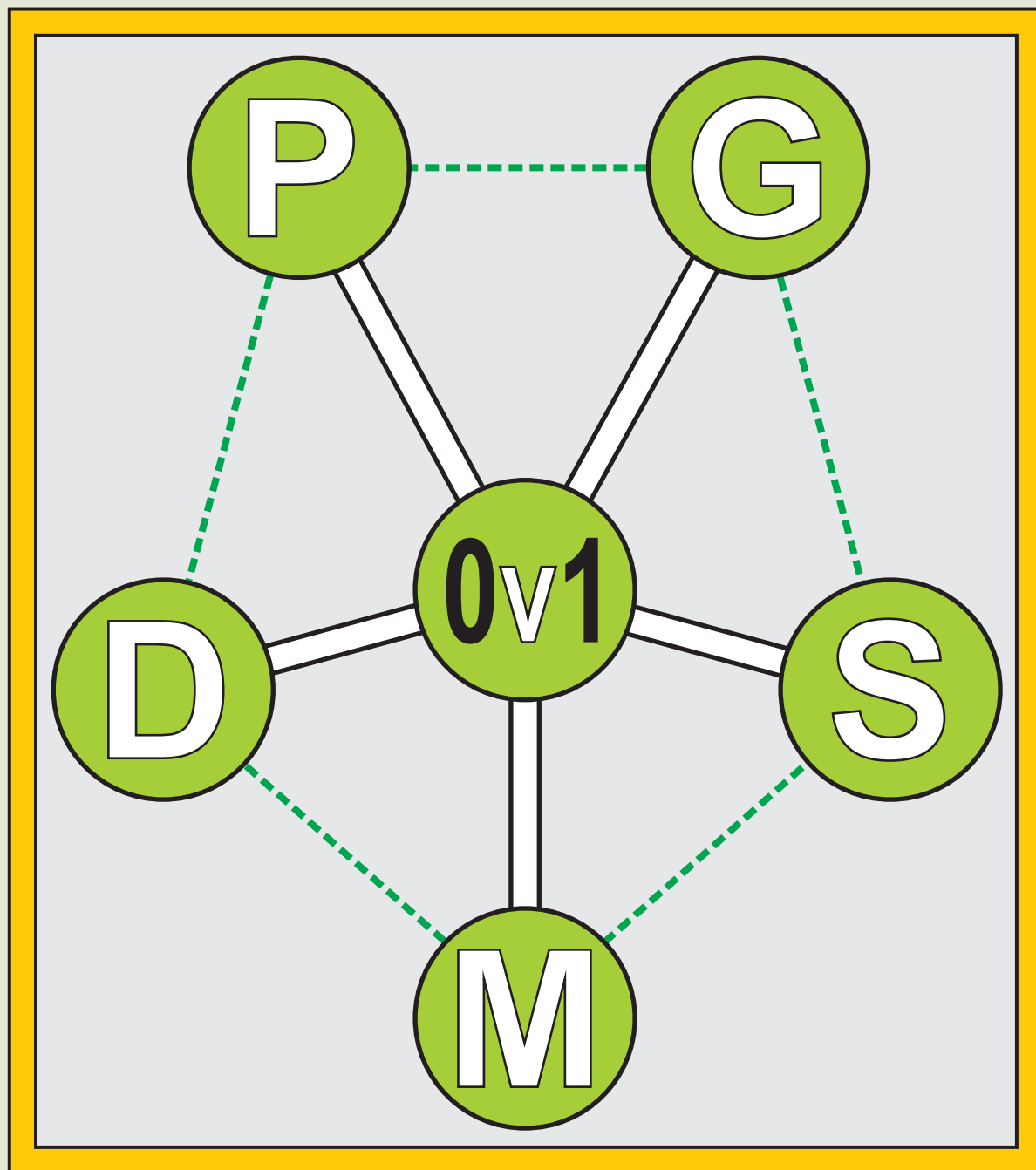




DIAGNOSTICUS

Aplicativo Médico



Alocação de Sintomas

Prof. Aguinaldo Prandini Ricieri



2.0 Doenças e Sintomas



Pneumonia X Gripe X Dengue X Meningite X Sinusite

X1	Febre (X10) { Febre Contínua (X11), (0 ∨ 1) Febre Recorrente (X12), (0 ∨ 1) Sem Febre (X13), (0 ∨ 1)	01
X2	Tosse (X20) { Tosse Expectorante (X21), (0 ∨ 1) Tosse Seca (X22), (0 ∨ 1) Sem Tosse (X23), (0 ∨ 1)	10
X3	Dor (X30) { Dor Miálgica (X31), (0 ∨ 1) Dor Torácica (X32), (0 ∨ 1) Dor Cefálgica (X33), (0 ∨ 1) Dor de Garganta (X34), (0 ∨ 1) Dor Desconhecida (X35), (0 ∨ 1) Não Sente Dor (X36), (0 ∨ 1)	01 10
X4	Respiração (X40) { Respira Normal (X41), (0 ∨ 1) Respira Chiando (X42), (0 ∨ 1) Respira Sibilando (X43), (0 ∨ 1)	01
X5	Coriza (X50) { Manifestou (X51), (0 ∨ 1) Não Manifestou (X52), (0 ∨ 1)	10
X6	Escarro (X60) { Cor Normal (X61), (0 ∨ 1) Cor Amarelada (X62), (0 ∨ 1) Cor Esbranquiçada (X63), (0 ∨ 1)	01
X7	Sudorese (X70) { Contínua (X71), (0 ∨ 1) Recorrente (X72), (0 ∨ 1) Não Tem Sudorese (X73), (0 ∨ 1)	10
X8	Vômito (X80) { Constante (X81), (0 ∨ 1) Periódico (X82), (0 ∨ 1) Sem Vômito (X83), (0 ∨ 1)	01
X9	Pele (X90) { Algumas Manchas (X91), (0 ∨ 1) Algumas Erupções (X92), (0 ∨ 1) Manchas e Erupções (X93), (0 ∨ 1) Sem Manchas e Erupções (X94), (0 ∨ 1)	10



4.5 Exemplo de Cromossomo do DiagnosticuS

$$\begin{array}{c}
 \text{C} \\
 \text{II} \\
 + (0,72) \cdot X_{11} - (0,15) \cdot X_{12} + (0,52) \cdot X_{13} + \\
 + \\
 + (0,11) \cdot X_{21} + (0,21) \cdot X_{22} - (0,32) \cdot X_{23} + \\
 + \\
 - (0,15) \cdot X_{31} - (0,31) \cdot X_{32} + (0,92) \cdot X_{33} + \\
 + \\
 - (0,78) \cdot X_{34} - (0,14) \cdot X_{35} - (0,19) \cdot X_{36} + \\
 + \\
 + (0,22) \cdot X_{41} + (0,36) \cdot X_{42} + (0,98) \cdot X_{43} + \\
 + \\
 \text{b}_{an} \text{ (Valores Sorteados)} + (0,42) \cdot X_{51} + (0,39) \cdot X_{52} + \text{ (Valores Dados)} X_{an} \\
 + \\
 - (0,57) \cdot X_{61} + (0,77) \cdot X_{62} + (0,39) \cdot X_{63} + \\
 + \\
 + (0,16) \cdot X_{71} + (0,29) \cdot X_{72} + (0,37) \cdot X_{73} + \\
 + \\
 - (0,02) \cdot X_{81} + (0,09) \cdot X_{82} + (0,99) \cdot X_{83} + \\
 + \\
 + (0,30) \cdot X_{91} + (0,41) \cdot X_{92} + (0,59) \cdot X_{93} - (0,66) \cdot X_{94} +
 \end{array}$$

$$b_{an} = -1 + 2 \text{ Aleatório, Aleatório } [0, 1]$$



	X11	X12	X13	X21	X22	X23	X31	X32	X33	X34	X35	X36	X41	X42	X43	X51	X52	X61	X62	X63	X71	X72	X73	X81	X82	X83	X91	X92	X93	X94	
Y247	0	0	1	1	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	1	1	0	0	0	0	0	1	S
Y248	0	1	0	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	1	0	1	0	0	D
Y249	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0	0	0	1	0	0	M
Y250	0	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	1	0	S
Y251	0	0	1	1	0	0	0	1	0	0	0	0	0	1	0	0	1	0	1	0	0	0	1	0	0	1	0	0	0	1	P
Y252	0	0	1	1	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	0	1	0	0	1	0	0	0	0	1	G
Y253	1	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	0	0	D
Y254	0	0	1	0	0	1	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	S
Y255	1	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	0	M
Y256	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	0	0	1	0	0	0	1	P
Y257	0	1	0	1	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	1	G
Y258	1	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	1	1	0	0	0	D
Y259	0	1	0	0	0	1	0	0	1	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	0	M
Y260	0	1	0	0	0	1	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	S
Y261	0	1	0	0	1	0	0	1	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	0	0	1	0	0	0	1	P
Y262	1	0	0	0	1	0	0	0	0	1	0	0	0	1	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	1	G
Y263	0	1	0	0	0	1	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	1	1	0	0	0	D
Y264	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	0	M
Y265	0	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	S
Y266	1	0	0	1	0	0	0	0	1	0	0	0	0	1	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	1	G
Y267	0	1	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	1	0	0	1	0	0	0	1	P
Y268	0	1	0	0	1	0	0	1	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	0	1	1	0	0	0	D
Y269	1	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	0	M
Y270	0	0	1	0	0	1	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	S
Y271	0	0	1	0	0	1	0	0	0	0	1	0	0	1	0	1	0	1	0	0	0	0	1	0	1	0	0	0	0	1	S
Y272	1	0	0	1	0	0	0	0	0	1	0	0	0	0	1	1	0	0	0	1	0	1	0	0	1	0	0	0	0	1	G
Y273	0	1	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0	1	1	0	0	0	D
Y274	1	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1	1	0	0	0	0	1	1	0	0	0	0	1	0	M
Y275	0	1	0	1	0	0	0	1	0	0	0	0	0	1	0	0	1	0	1	0	0	0	1	0	0	1	0	0	0	1	P
Y276	0	1	0	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	1	0	0	0	1	0	0	1	0	0	0	1	P
Y277	1	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	1	0	1	0	0	1	0	0	0	0	1	G

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6.3 Exemplificando os Diagnósticos Feitos com C6

95,1% de Acerto em 412

Cromo:	C6	Y1 (Paciente)	Y2 (Paciente)	Y3 (Paciente)	Y4 (Paciente)	Y5 (Paciente)				
X11	-0,542	0 0	0 0	1 -0,542	0 0	0 0				
X12	0,497	1 0,497	1 0,497	0 0	0 0	0 0				
X13	0,771	0 0	0 0	0 0	1 0,771	1 0,771				
X21	-0,142	1 -0,142	0 0	0 0	0 0	0 0				
X22	0,184	0 0	1 0,184	0 0	0 0	0 0				
X23	-0,013	0 0	0 0	1 -0,013	1 -0,013	1 -0,013				
X31	0,987	0 0	1 0,987	0 0	0 0	0 0				
X32	0,998	1 0,998	0 0	0 0	0 0	0 0				
X33	-0,998	0 0	0 0	1 -0,998	0 0	0 0				
X34	-0,756	0 0	0 0	0 0	0 0	0 0				
X35	0,191	0 0	0 0	0 0	1 0,191	1 0,191				
X36	0,998	0 0	0 0	0 0	0 0	0 0				
X41	0,199	0 0	1 0,199	1 0,199	1 0,199	1 0,199				
X42	-0,323	0 0	0 0	0 0	0 0	0 0				
X43	0,707	1 0,707	0 0	0 0	0 0	0 0				
X51	-0,776	0 0	0 0	0 0	1 -0,776	1 -0,776				
X52	-0,899	1 -0,899	1 -0,899	1 -0,899	0 0	0 0				
X61	-0,996	0 0	0 0	1 -0,996	1 -0,996	1 -0,996				
X62	-0,072	1 -0,072	0 0	0 0	0 0	0 0				
X63	0,330	0 0	1 0,330	0 0	0 0	0 0				
X71	0,031	0 0	0 0	0 0	0 0	0 0				
X72	0,091	0 0	1 0,091	1 0,091	1 0,091	0 0				
X73	0,755	1 0,755	0 0	0 0	0 0	1 0,755				
X81	0,849	0 0	0 0	1 0,849	0 0	0 0				
X82	0,192	0 0	0 0	0 0	1 0,192	1 0,192				
X83	0,963	1 0,963	1 0,963	0 0	0 0	0 0				
X91	0,987	0 0	1 0,987	0 0	0 0	0 0				
X92	-0,017	0 0	0 0	0 0	0 0	0 0				
X93	-0,981	0 0	0 0	1 -0,981	0 0	0 0				
X94	-0,353	1 -0,353	0 0	0 0,000	0 0	0 0				
	+2,594		+3,339		-3,290		-0,341		+0,323	
	P	P	D	D	M	M	S	S	S	S

Meningite, Gripe, Sinusite, Pneumonia, Dengue

