Use Naïve Bayes:

Given all the previous patients I've seen (below are their symptoms and diagnosis)...

Chills	Runny nose	Headache	Fever	Flu
Υ	N	Mild	Υ	N
Υ	Υ	No	N	Υ
Υ	Υ	Strong	Υ	Υ
N	Υ	Mild	Υ	Υ
N	N	No	N	N
N	Υ	Strong	Υ	Υ
N	Υ	Strong	N	N
Υ	Υ	Mild	Υ	Υ

Do I believe that a patient with the following symptoms has the flu?

N	Mild	Y	?
---	------	---	---