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1 Causality and Emergency medicine?

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23 The main goal of emergency medicine is to recognize and treat medical distress and then to
24 dispatch in appropriate place the patient (intensive care, normal care or back to home). The
25 diagnosis and the therapeutic strategies are well known by emergency physicians. However,
26 the etiological strategy is usually considered by them as a further step, considering this could
27 wait further care management, and preformed only in the appropriate unit (if the patient is
28 hospitalized). A good illustration of this comment is the significant lower proportion of
29 citations for the term “causality” for Emergency medicine compared to some others medical
30 specialties in PUBMED (Table). However, causality should be included in the diagnosis
31 procedure, as well as severity, in case of a known causal condition may improve the diagnosis
32 (by significantly changing the post-test probability) or the treatment. For instance, in the case
33 of a subject suffering from an acute chest pain, the evaluation of a possible acute coronary
34 syndrome should include search for atherosclerosis and its risk factors. The presence or at the
35 opposite the lack of risk factors modify significantly the probability of acute coronary
36 syndrome (even though not sufficient, of course).(1) Early treatment includes atherosclerosis
37 management as well. There are some other examples, for which risk factors are clearly
38 identified and the diagnosis is not simple (deep venous thrombosis risk factors for the
39 diagnosis of pulmonary embolism, specific allergen exposure and asthma...).(2;3)

40 Etiological research in early phase of care can improve the diagnosis and the treatment, such
41 as severity assessment. Further studies are needed to assess how causality could improve the
42 diagnosis in emergency care.

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44 References

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49 suspected pulmonary embolism. *Am J Med* 2002; 113(4):269-275.
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55 Table. Proportion of citation in PUBMED including causality in the corresponding medical
 56 specialty in the last 10 years (using Medical Subject Heading Terms).

	Number of citation in the last ten years, for the specialty	Number of citation in the last ten years, for the specialty AND causality	Proportion
Emergency medicine	29571	9377	31,7% *
Cardiology	71575	28773	40,2%
Medical Oncology	42879	17614	41,1%
Neurology	90277	44017	48,8%
Endocrinology	44596	22475	50,4%
Gastroenterology	48305	24959	51,7%
Dermatology	47905	25011	52,2%
Pulmonary medicine	47470	25201	53,1%
Nephrology	31226	17226	55,2%
Rheumatology	23059	12733	55,2%
Hematology	46346	26447	57,1%
TOTAL (emergency medicine excluded)	493638	244456	49,5%

57 (Performed the 11th, April 2009),

58 * $p < 0.0001$, Chi² test between Emergency medicine and other specialties searched.