AB0229 INFLUENCE OF RHEUMATOLOGIST IN PRIMARY CARE

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Background

Objectives To study if there are differences between the type and frequency of pathologies visited in a surgery of rheumatology hospital before and after the presence of rheumatologist in primary care (PC).

Methods Descriptive and retrospective study in the urban medium from Barcelona. We revised the historical clinic from first six months period in 1995 (without rheumatologist in PC) and 2000 (when the rheumatologist goes once per week to the primary care centre). We analysed the variables age, sex and principal diagnosis from all the first visits attended. We assembled the diagnosis in 10 groups: infectious arthritis (1), connective tissue disorders (2), crystal-related arthropathies (3), inflammatories arthropathies (4), osteoarthritis and related disorders (5), regional pain problems and soft tissue (6), muscular diseases (7), tumours and paraneoplastic syndromes in the musculoskeletal system (9) and others pathologies (10). For the statistic test we use the chi-squared test to contrast of proportions and the Fisher's exact test when the expected effectives were lower than 5.

Results In 1995 we have done 779 first visits (with 2.3% of loses the fact is not to have the historical clinic) and from 2000, 411 (11% of loses caused by the same matter). In 1995 the average age was 55 years (3–86), the distribution per sex was: 185 men (24%) and 594 women (76%), and per pathology: group 1, 2(0.2%), group 2, 45 (5.72%), group 3, 18(2.3%), group 4, 23 (2.9%), group 5, 453(58.1%), group 6, 152(19.5%), group 7, 1 (0.12%), group 8, 55(7%), group 9, 4(0.5%), group 10, 26 (3.3%). In 2000 the average age was 55 years (5–87), the distribution per sex was: 126 men (30%) and 285 women (70%), and per pathology: group 1, 1(0.2%), group 2, 38(9.2%), group 3, 14 (3.4%), group 4, 21 (5.1%), group 5, 200 (48.6%), group 6, 89 (21.6%), group 7, 0, group 8, 31(7.5%), group 9, 3 (0.73%), group 10, 14(3.4%). We found significant difference between both years in the groups 2 ($p = 0.025$) and 5 ($p = 0.0002$).

Conclusion The total numbers of first visits in the hospital done in 2000 were half less than in 1995 (above all in degeneration pathology), without being geographic and demographic variations. The incorporation of the rheumatologist in PC would improve the quality assistance in the hospital and also allow an early diagnosis from many rheumatic illness that would benefit from it.

AB0230 A COMPUTER-AIDED DIAGNOSTIC SYSTEM WORKING FROM BIBLIOGRAPHIC INFORMATION AND EXPERT ADVICE

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Background The improvement of medical informatics and the introduction of computers in all medical fields have modified the nature of the information manipulated by diagnosis support systems. Systems must be able to store information, to consult validated clinical tables, and to compare the results for several diseases.¹ This suggests the production of strongly *inter-connected* process modules, sharing a common core of information.

We have to problem to solve. The first one is to build a system which can treat several types of information about diseases. Ordinary, such systems try to aggregate information and to compute the diagnosis with a new global procedure. We assume that it is better, in first, to analyse each type of information with each treatment associated to it and after that to aggregate the different results into a global advice. The second part of the problem is to conceive a data organisation which allows to store only one patient description, enough generic to work for all diagnosis procedures.

Objectives

Methods We have adopted an **Object Oriented Design** to create the Knowledge Data Base and to obtain an architecture which allows the collaboration between the treatment modules.² The model of the Knowledge Data Base contains a generic object Description composed from three sets of signs: present signs, missing signs and information signs (to store non-pathological data as sex, age\dots). Both patient and disease descriptions inherit their structure from the object Description. This organisation ensures the consistency between the patient and disease descriptions and simplifies their comparison. Two methods of diagnosis are defined: evaluation of criteria lists issued from bibliography (as ARA criteria), and scoring calculus from an expert advice. The first one eliminates all diseases for which the patient have exclusion signs. If the patient presents all criteria of a disease, the diagnosis is validated, else the score calculus produced an ordered list of possible. So, we can have a final advice about the patient case which is an aggregation of the two processes.

Results The realised software contains a KBD with more than one hundred signs to define 13 diseases in inflammatory rheumatology. 132 records of patients who present one of these 13 rheumatic diseases, was analysed. 83 (62.9%) patients presented a complete criteria list for one disease. The scoring method classified the right disease in the head of the list in 106 (80.3%) cases, and the aggregation of the two methods leads to make the right diagnostic for 120 (90.9%) cases.

We have shown that it is possible to conceive such hybrid system which can deal with several types of information and can compare diseases for which information is heterogeneous. For example criteria list is missing for three diseases. We think that this way produces better results than when we try to mix all information in only one type of value and after that to compute with.

Conclusion**REFERENCES**

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OP0106 EPIDEMIOLOGY OF HIP FRACTURE IN AGE GROUPS OF HIGH OSTEOPOROSIS RISK ON THE URAL, RUSSIA

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Background The epidemiology of hip fractures in Eastern parts of Russia has not yet been studied.

Objectives The aim of this retrospective study was to analyse the incidence of hip fracture in subjects over 50.