

# THE IMPACT OF SOCIAL STATUS ON THE FINANCIAL EQUILIBRIUM OF ENDOVASCULAR TREATMENT OF INTRACRANIAL ANEURYSMS IN PUBLIC HOSPITAL

CP-196

L.YACHI<sup>1</sup>, H.BENHADDOU<sup>1</sup>, M.R. EL HASSANI<sup>2</sup>, Z.ALIAT<sup>1</sup>, A.CHEIKH<sup>3</sup>, Y.BENSOUDA<sup>1</sup>

<sup>1</sup> Mohammed V University- Faculty of Medicine and Pharmacy-Specialties Hospital of Rabat, Pharmacy, Rabat, Morocco  
<sup>2</sup> Mohammed V University- Faculty of Medicine and Pharmacy-Specialties Hospital of Rabat, Neuroradiology, Rabat, Morocco  
<sup>3</sup> Abulcasis International University- Cheikh Zaid Hospital, Pharmacy, Rabat, Morocco  
yachilamyae@gmail.com

## BACKGROUND

Intracranial aneurysms are both frequent ( prevalence of near 3% ) and expensive. Their endovascular treatment by coiling needs indeed specific and expensive medical devices (MDs). At the same time, the management by social security coverage are depending on the social status of patients and strongly affect the pharmacy's budget equilibrium.

## OBJECTIVES

The objective of this study is to evaluate the cost of medical devices in intracranial aneurysms treatment by coiling depending on billing system, which depends itself on social coverage category of a public hospital patients. Hence, a zone of budgetary equilibrium, integrating different parameters, is then sought.

## MATERIAL AND METHODS

This is a retrospective study on 83 cases of intracranial aneurysms, which were embolized in the neuroradiology department between January 2009 and December 2015. Data is collected from patient's cards in neuroradiology and financial department. The costs of biological analyses, radiological imaging, hospitalization, medication and indirect costs were not included in this study.

## RESULTS

- In total, 83 patients were treated, mean age 49,5. The sex ratio M/F = 0,75 ( figures 1 and 2 ) , average coils per patient is 2,75.

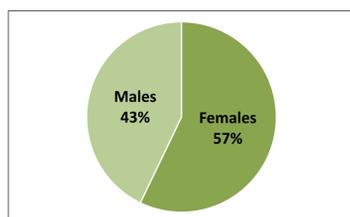


figure 1 : Percentage distribution of population by gender

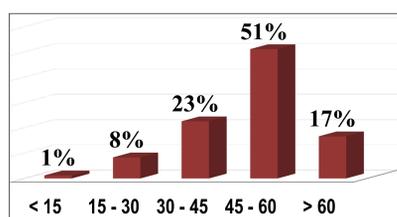


Figure 2 : Percentage distribution of population by age

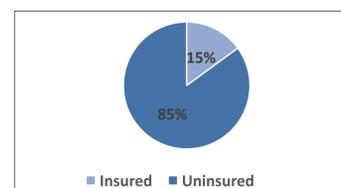


Figure 3. Percentage of insured and uninsured patients category

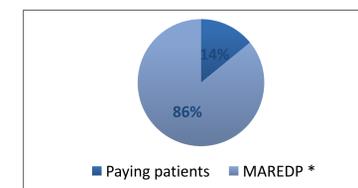


Figure 4. Uninsured patients category

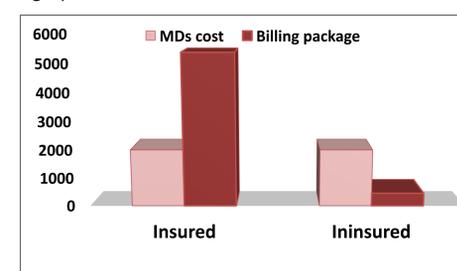


Figure 5 : Gap between MDs cost and invoiced billing package

- The percentage of insured and uninsured patients category that underwent endovascular treatment of intracranial aneurysms in our hospital is represented in Figures 3 and 4
- The average charge of MDs is 2 000€
- Billing package of insured and uninsured patients is respectively 5 364€ and 450 €

\*In public hospitals, the same billing package are used for invoicing both paying patients and MAREDP ( Medical Assistance Regime for Economically Disadvantaged Persons. Therefore we grouped them in the same billing category (uninsured patients)

## DISCUSSION/CONCLUSION

For an average of 2,75 coils per patient, the average charge of MDs is 2 000€, which is near 400% of the amount refunded by uninsured patients (450€) and who represent 85% of patients treated. Health care of insured patients is 5 364€ but it represents only 15%. In these conditions, the ratio Revenues/Expenses is 0,65. The hospital is then in deficit. These results show that for budgetary equilibrium of the pharmacy. This treatment billing must be reevaluated, especially amongst uninsured patients. The graph below shows the budgetary equilibrium zone where revenues are between once and twice the expenses of MDs

