



# THE HIDDEN DIAGNOSES IN EMERGENCY DEPARTMENT: A STUDY ON NOT OTHERWISE SPECIFIED HEADACHE

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## Background and objective

The diagnosis of Not Otherwise Specified (NOS) headaches in the Emergency Department (ED) is frequent despite many specialist visits performed. Aim of the study was to evaluate specialist visits carried out in the patients discharged from ED with diagnosis of NOS headache in order to evidence discrepancies between specialist and ED diagnosis at discharge .

## Methods

We retrospectively (1.6.2018 - 31.12.2018) analyzed all the patients admitted with non-traumatic headache to the ED of the tertiary-care University Hospital of Trieste. We evaluated the patients discharged from ED with a final diagnosis of NOS headache and who underwent at least one specialist examination. Demographic data, specialist and ED diagnosis were analyzed.

## Results

We analyzed 124 patients (93 F, 31 M, 44 y ±15). 71.8% of patients were examined only by a neurologist, 12.9% by non-neurologists, 15.3% by both neurologist and non-neurologist. Only 37% received a precise diagnosis, slightly more frequently by neurologist than the other consultants (40.5% vs 37.5%, table 1). Neurologists diagnosed primary headaches, headaches secondary to neurological diseases, and facial neuralgia; non-neurologists detected headaches secondary to non-neurological diseases. Primary headaches were diagnosed in 25.7% of cases, migraine being the most frequent. Physicians did not report any specialist diagnoses in the ED discharge sheet.

Diagnosis	Consulting visits			Total visits (n=124)
	Neurological (n= 89)	Non-neurological (n=16)	Neurological + Non-neurological (n=19)	
<b>Primary Headache</b>	<b>30 (33.7%)</b>	-	<b>2 (10.5%)</b>	<b>32 (25.7 %)</b>
Migraine without aura	20 (18.5 %)	-	1 (5.3%)	21 (16.9 %)
Migraine with aura	5 (5.6 %)	-	-	5 (4.0 %)
Tension-type headache	4 (4.5 %)	-	1 (5.3%)	5 (4.0 %)
Cluster Headache	1 (1.1 %)	-	-	1 (0.8 %)
<b>Secondary Headache</b>	<b>4 (4.4 %)</b>	<b>6 (37.5 %)</b>	<b>2 (10.5%)</b>	<b>12 (9.7 %)</b>
Transient ischemic attack	1 (1.1 %)	-	-	1 (0.8 %)
Headache attributed to systemic viral infection	-	1 (6.2%)	1 (5.3%)	2 (1.6%)
Alcohol-induced headache	1 (1.1 %)	-	-	1 (0.8 %)
Sleep apnoea headache	1 (1.1 %)	-	-	1 (0.8 %)
Hypoglycaemia	1 (1.1 %)	-	-	1 (0.8 %)
Headache attributed to disorder of the eyes	-	3 (18.8%)	-	3 (2.5%)
Headache attributed to disorder of ears	-	1 (6.2%)	-	1 (0.8%)
Headache attributed to acute rhinosinusitis	-	1 (6.2%)	1 (5.3%)	1 (0.8%)
Headache attributed to disorder of the teeth	-	-	-	1 (0.8%)
<b>Neuropathies &amp; facial pains</b>	<b>2 (2.2 %)</b>	-	-	<b>2 (1.6 %)</b>
Trigeminal neuralgia	1 (1.1 %)	-	-	1 (0.8 %)
Occipital neuralgia	1 (1.1 %)	-	-	1 (0.8 %)
<b>None specific diagnosis</b>	<b>53 (59.5 %)</b>	<b>10 (62.5 %)</b>	<b>15 (79.0%)</b>	<b>78 (63.0%)</b>

Table 1. Diagnoses of specialist consultants

## Conclusions

Specialist consultants made specific diagnoses in one-third of patients that were not reported as final in the discharge records by the ED physician. This leads to a loss of diagnoses and to an overestimation of NOS headache.