

Impact of specific training in anaphylaxis of the Triage nursing staff in a Tertiary Hospital's Paediatric Emergency Department

Running title: Improving triage in anaphylaxis

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ABSTRACT

BACKGROUND: After a diagnosis of anaphylaxis, patients receive action management plans to prevent and treat new episodes, including attending the Emergency Departments (ED) for control or further treatment. In a previous study, we observed that more than half of the children with anaphylaxis were incorrectly prioritized in our Paediatrics Emergency Unit (PEU), delaying their treatment. In conjunction with our PEU staff we designed a basic educational intervention (BEI) to try to solve this problem. We analyzed the effect of this intervention in the effective triage of the subsequent children diagnosed with anaphylaxis.

METHODS: Our BEI consisted of a formative lecture given to the PEU triage nurses and the design of a Reference Card highlighting anaphylaxis symptoms and risk factors.

We included 138 children with medical diagnosis of anaphylaxis and assessed modifications in their triage priority level and waiting times for physician (WT) after our intervention. According to the EI implementation date, 69 children were diagnosed before (G1) and 69 after (G2). Clinical data were compared to assess the severity of the episodes.

RESULTS: There were no differences between groups. The WT diminished (from 8 to 1 minute [p: 0.03]), and the number of correctly identified patients increased (36.2% [G1] and 72.2% [G2][p= 0.0001]) after the BEI.

CONCLUSIONS: Our BEI has been effective, improving the identification and prioritization of children with anaphylaxis and reducing their WT. We need to pay attention to the functioning of our patients' reference ED and establish interdisciplinary measures that allow optimizing anaphylaxis' management.

Key words: Triage, anaphylaxis management, children, educational intervention, specific education non-medical staff, multidisciplinary, Paediatric Canadian Triage and Acuity Scale (PaedCTAS)

RESUMEN

INTRODUCCION: Tras un diagnóstico de anafilaxia los pacientes reciben planes de tratamiento para prevenir y tratar nuevos episodios, que incluyen acudir a Urgencias para control o tratamiento subsiguientes. Previamente, nuestro grupo había observado que más de la mitad de los niños con anafilaxia eran priorizados incorrectamente en nuestra Unidad de Urgencias de Pediatría (UP). Elaboramos, en colaboración con el personal de UP una intervención educativa básica (IEB) para resolver el problema. Analizamos el efecto de dicha intervención en el triaje de los niños atendidos posteriormente por anafilaxia.

METODOS: Nuestra IEB consistió en una sesión clínica para el personal de enfermería responsable del triaje y diseñamos una Reference Card destacando síntomas y factores de riesgo de anafilaxia

Incluimos 138 niños con diagnóstico de anafilaxia, analizando los cambios en el nivel de prioridad, tiempos de espera para valoración médica (TEM) tras nuestra IEB. Según la fecha de implementación, 69 niños fueron atendidos antes (G1) y el resto después (69). Se compararon además los datos clínicos de los episodios.

RESULTADOS: No hubo diferencias en los datos clínicos entre grupos. Los TEM disminuyeron (de 8 a 1 minutos [$p: 0.03$]), incrementándose las cifras de pacientes priorizados correctamente (36.2% [G1] y 72.2% [G2][$p= 0.0001$]) tras nuestra intervención.

CONCLUSIONES: Nuestra IEB ha sido eficaz, mejorando la identificación, priorización de los niños con anafilaxia y reduciendo los TEM. Debemos conocer el funcionamiento de los Servicios de Urgencias de referencia para nuestros pacientes y establecer medidas multidisciplinarias que optimicen el manejo de la anafilaxia.

Palabras clave: Triage, manejo de la anafilaxia, niños, intervención educativa, educación específica, personal no-médico, multidisciplinar, Sistema Canadiense de Triage Pediátrico (PaedCTAS)

BACKGROUND

Anaphylaxis incidence in Spain is estimated at 0.9 episodes per 1000 emergencies [1], with increasing figures [2]. Patients receive action management plans in Allergy Consults to prevent and treat anaphylaxis, including the advice of attending Emergency Departments (ED) after an episode [3-6]. However, Guidelines do not consider triage's role in ED functioning [3-5].

Our hospitals' Paediatric Emergency Unit (PEU) attends approximately 40500 children annually. It has a specific triage system, with informatics support, based on the Paediatric Canadian Triage and Acuity Scale (PaedCTAS) [7,8] since 2012. Triage is performed by nursing staff. It includes 5 priority levels with recommended waiting times for medical care [RWT] (I: Resuscitation, immediate attention), II (Very urgent, RWT: 15 minutes), III (Urgent, RWT: 30), IV (less urgent, RWT: 60), V (non-urgent, RWT: 120) [7-8]. Patients' priority levels are assigned as follows:

First, patients are visually evaluated, considering general appearance, respiratory distress external signs and skin perfusion: Paediatric Assessment Triangle [5,6,9]. Depending on the number of altered sides patients receive initial priority levels: Level 1: Three altered sides; Level 2: 2 altered sides; Level 3: 1 side; Level 4-5: None.

Afterwards, main complaint is evaluated, modifying the initial priority level. Priority allocation in allergies is based on skin symptoms: Facial angioedema: Level III, isolated urticaria: IV. If skin symptoms associate another organ affectation priority changes to II. If non-medical staff diagnoses anaphylaxis at triage (unlike its role assessing other symptoms) patients will receive Level I priority [7,8-10].

Previously, we evaluated how our system prioritized children attended at PEU for anaphylaxis, noting that 66% were under-prioritized, delaying their treatment [10]. Other authors suggested similar results [11].

We elaborated a basic educational intervention (BEI) jointly with PEU staff consisting of a teaching session for triage personnel and a Reference Card (Figure 1), highlighting anaphylaxis symptoms and risk factors.

OBJETIVE

We assessed the efficacy of these measures in the prioritization and waiting times of the patients subsequently treated who received a medical diagnosis of anaphylaxis.

METHODS

Design

We included 138 children. We analyzed PEU discharge reports of children under 15, codified as "anaphylaxis" or "non-specified allergy". The medical diagnosis of anaphylaxis was confirmed from the discharge charts by 2 Allergists, according to the current guidelines [3-6]. Information regarding these patients' triage was collected in separate sheets that were the object of our analysis.

Sixty-nine of these patients who had been attended between October 2014 and March 2016, formed the group G1, and took part in our previous study [10]. In April 2016 we carried out the BEI directed to the non-medical personnel performing triage. We included an equal number of children (G2 group: 69 patients) who had been evaluated after BEI in PEU, following the same inclusion criteria as G1.

The study was approved by the Hospital Clinical Research Ethics Committee.

Improvement measures/Reference Card design

The information given was agreed between 2 allergists, 2 PEU paediatricians and 2 nurses experienced in paediatric triage (Figure 1). It included a clinical session for PED nursing and auxiliary staff, emphasizing symptom recognition and initial assessment. In addition, a Reference Card was included to be used in daily activity. This Card includes anaphylaxis symptoms, risk factors [12-13], recommended priority levels to be given accordingly, and patients' location in the PEU (immediate attention room, treatment room, general waiting room) *per* final priority.

Variables for analysis

As primary outcomes, we evaluated whether our intervention reduced waiting times (time of medical chart registration minus time of arrival at PEU registration) before receiving medical care and the number of under-triaged children. The initial triage level given by the "first impression" and the final one, after the complete triage process were recorded. Patients' location in the PEU was also assessed.

As a secondary outcome and to verify that both groups were comparable, we recorded the following variables:

- Demographics (Age and sex)
- Allergological history: previous anaphylaxis, previous prescription of epinephrine auto-injectors (EA), food allergy and asthma
- Clinical data of the episode of anaphylaxis in progress
- Medical treatment received after the medical evaluation.

From the information contained in the triage sheet, we analyzed the suspicious observations of anaphylaxis recorded by non-medical personnel.

From the medical discharge charts, we extracted data regarding symptomatic patients during medical examination and epinephrine administration.

Statistical analysis

We used the statistical software SPSS 22.0 for Windows, IBM Corp. Released 2013. IBM SPSS Statistics for Windows, Version 22.0. Armonk, NY: IBM Corp. Demographics and waiting times were analysed by Mann-Whitney tests. Rates of initial triage levels given by PAT, symptomatic patients, epinephrine administration, past allergies and observations were analysed by Chi Square tests. All statistical tests had a significance level of 0.05.

RESULTS

After the independent analysis of the discharge reports coded as “*anaphylaxis*” and “*non-specified allergy*”, 69 patients were included in G2. Previously, 8 cases codified as “*anaphylaxis*” had been discarded and 5 cases coded as “*non-specified allergy*” included. One of the discarded cases was a boy under a drug allergy desensitization protocol, transferred from the out-patient hospital that did not require formal triage. The remaining 7 cases did not meet anaphylaxis criteria [3-6]. Alternate diagnosis included: acute urticaria episodes, coexistent bronchial asthma and rhinoconjunctivitis, infectious urticaria and an intense oral allergy syndrome.

G1 patients had been previously assessed [10] and underwent the same inclusion procedure.

Primary outcomes (Table 1)

The rate of accurately (level I or II) triaged patients rose from 36.2% at G1 to 72.2% at G2 ($p=0.001$). In G1, the most frequently given triage level was III. Triage level II followed by level I were the most frequent at G2. A few patients of both groups were triaged to level IV (8.7% (G1) and 1.4% (G2)).

Median waiting times diminished significantly from 8 to 1 minutes ($p=0.004$). Patients' location in the ED changed in G2 since more than 75% patients were in attended in IA Rooms (compared to 53% at G1). The rate of patients located in the waiting room decreased to less than 10% in G2.

Secondary Outcomes (Table 1)

The number of observations compatible with anaphylaxis recorded in the triage sheets by non-medical personnel increased from 51.1% to 76.8% ($p = 0.002$) after our intervention. Among the observations recorded in the triage chart, the number of patients catalogued as "*allergic reaction or skin symptoms*" diminished, and "*anaphylaxis suggestive symptoms*" records increased, doubling the numbers of G1 (not shown in the table). In G1, 2 out of 3 patients who had used an EA before attending the ED were under-triaged to level III. In contrast, the 2 patients who had used an EA in G2 were accurately triaged.

Both groups were comparable in demographic data and previous allergic diseases except bronchial asthma, which was more frequent in G1 patients. Anaphylaxis was highlighted as a diagnosis in the "*allergies*" tab of our medical record programme in 10 cases (5 patients per group). Both groups were also comparable in terms of the characteristics of the analyzed episode: "*first impression*" of the child observed during triage, involvement of organs other than the skin recorded by the paediatrician and administration of epinephrine in the PEU. Regarding patients' referral, a significantly greater number of patients in G2 had been referred from another centre (34.8% in G2 versus 17.4% in G1; $p = 0.03$). However, isolated analysis of referred patients showed no differences in the final priority level given: 41.7% in G1 versus 52.2% in G2 were prioritized correctly (not shown in the table).

DISCUSSION

After a diagnosis of anaphylaxis, patients receive action management plans to prevent and treat new episodes. These plans include the indication to go to EDs for control or further treatment. Patients and caregivers do not comply with these plans [14-16]. Allergists are confident that patients with anaphylaxis will be immediately attended at ED. However, we are not aware of triage's role in the current functioning of ED.

Triage is defined as 'the procedure of sorting out and classifying patients or casualties to determine both the priority of need for medical care and the proper place of treatment' [17].

Recently we analysed how our hospital's triage system classified a group of children who received afterwards a medical diagnosis of anaphylaxis [10]. We found that 66% were under-triaged, delaying their medical care.

We have verified how the implantation of educational measures to the non-medical personnel responsible for the triage has modified anaphylaxis' management in our PEU. After our intervention more than 70% of the children with anaphylaxis were correctly prioritized and attended in Immediate Attention rooms. Waiting times for medical assessment diminished dramatically. Patients' location in EDs influences the possibility of being monitored closely and increases the chances of receiving immediate attention in case of deterioration.

Triage is the place where anaphylaxis should be identified, but surprisingly most Guidelines do not contemplate this aspect [3-5]. Recently, the *Manual de Anafilaxia Pediátrica* (MAP) has included the recommendation of prioritizing anaphylaxis to levels I or II of medical attention in 5-level triage systems, stressing the importance of symptom recognition beyond general appearance [6]. Many patients may appear stable during the initial impression [9] as described in results. Patients may also attend the EDs after being treated in other health centres or self-treatment.

Analysing final triage levels, unlike G1 group patients, only one G2 patient was prioritized to level IV (less-urgent). Besides, the most frequent priority level in G1 group was III (urgent). After our intervention the most frequent triage level shifted to both levels I and II (immediate attention).

In both groups, the most frequently collected observation was "*anaphylaxis compatible symptoms*". In G2, the number of observations increased significantly. Non-specific comments such as "*allergic reaction*", "*cutaneous symptoms*" diminished. This is attributable to both

measures: the theoretical training of non-medical personnel in the concept of anaphylaxis and the availability of the Reference Card that helps to remember and recognize the signs and symptoms through key words.

Literature regarding triage training does not include specific recommendations about previous experience in pediatrics or formal triage training. It has been suggested that non-medical staff performing triage duties should have at least one year of experience in pediatrics nursing [18]. We had no influence in our hospital's recruitment policies nor could get data about individual formation or prior triage experience of our triage nursing staff. However, we believe this fact did not influence our results, considering the patients were attended during a 3-year long period without changes in recruitment policies.

Finally, 2 allergists analyzed the discharge reports independently and ruled out anaphylaxis diagnosis in 10% of the cases. These data reinforce the need of close collaboration between Allergy and Emergency Services to develop jointly management protocols and to establish actions of training and updating in allergic diseases, at least in those as relevant as anaphylaxis.

Allergists may play several roles regarding allergic patients' triage procedures.

First, allergists must identify the patients at risk, by neatly recording allergy and previous anaphylaxis episodes in their computerized clinical history files. In our sample, during data collection, we observed elicitors were better identified than previous anaphylaxis episodes in patients with previous allergy work-ups. Patients should also be advised in the Allergy consults to use the term "*anaphylaxis*" instead of others such as "*allergy*" or "*hives*" when they use the ED. EA prescriptions by allergists would also identify patients at-risk of anaphylaxis and/or with previous episodes.

The insights of different specialists are useful to suggest changes in triage systems due to their expertise in specific diseases [19], so allergists may and should help analyzing "*allergies*" category in current triage systems, jointly with ED specialists. Regarding education, Farbman[11] et al showed how educational measures reduced anaphylaxis-related admission rates. Our results show that carrying out training activities addressed to the triage staff as well as introducing adjustments in a triage system regarding anaphylaxis peculiarities improved patients' identification and

dramatically reduced waiting times for medical attention. In our hospital, this improvement has been maintained at least for 18 months after the establishment of such measures.

Our study has several limitations: It is centered in one hospital, with a single triage system and specific informatics support program. The application of our suggestions in other hospitals with the same system may require little adjustments but different triage systems will require individual assessments and specific adjustments. On the other hand, our results are referred to an 18-month period after our measures' implementation. Despite the presence of the Reference Card for everyday use, it would be advisable to evaluate if our intervention's effect remains after some time.

Finally, we believe that Anaphylaxis Guidelines should include triage's role as the first step in anaphylaxis attention in every health center/hospital. We need to be aware that no Emergency Doctor will be able to attend a patient with anaphylaxis soon enough without proper prioritization at ED admission.

BIBLIOGRAPHY

1. Moro Moro M, Tejedor Alonso MA, Esteban Hernandez J, Mugica Garcia MV, Rosado Ingelmo A, Vila Albelda C. Incidence of anaphylaxis and subtypes of anaphylaxis in a general hospital emergency department. *J Investig Allergol Clin Immunol*. 2011;21(2):142-9.
2. Tejedor-Alonso MA, Moro-Moro M, Mosquera Gonzalez M, Rodriguez-Alvarez M, Perez Fernandez E, Latasa Zamalloa P, et al. Increased incidence of admissions for anaphylaxis in Spain 1998-2011. *Allergy*. 2015;70(7):880-3.
3. Simons FE, Ebisawa M, Sanchez-Borges M, Thong BY, Worm M, Tanno LK, et al. 2015 update of the evidence base: World Allergy Organization anaphylaxis guidelines. *World Allergy Organ J*. 2015 ;8(1):32.
4. Simons FE, Arduzzo LR, Bilo MB, Cardona V, Ebisawa M, El-Gamal YM, et al. International consensus on (ICON) anaphylaxis. *World Allergy Organ J*. 2014;7(1):9.
5. Cardona V; Grupo de trabajo de la Guía GALAXIA de actuación en anafilaxia. [Guideline for the management of anaphylaxis: GALAXIA 2016] *Guía de actuación en anafilaxia: GALAXIA 2016*. Madrid: Esmon SA; 2016 <http://www.seaic.org/profesionales/galaxia> (Last accessed 2018th April 3rd)

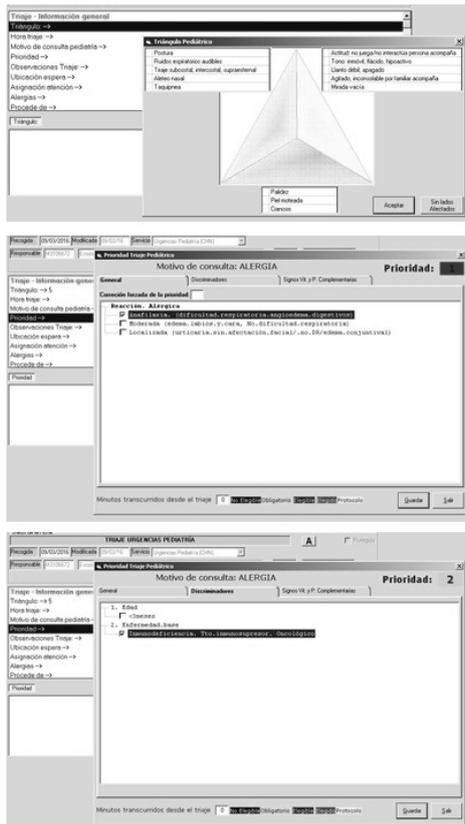
6. Juliá Benito JC; Grupo de Trabajo de Anafilaxia. SEICAP. [Pediatric Anaphylaxis Handbook] Manual de Anafilaxia Pediátrica. Madrid: 2017 http://www.seicap.es/es/map-manual-de-anafilaxia-pediátrica_44766 (Last accessed 2018th April 3rd)
7. Warren DW, Jarvis A, LeBlanc L, Gravel J; CTAS National Working Group; Canadian Association of Emergency Physicians; National Emergency Nurses Affiliation; Association des Médecins d'Urgence du Québec; Canadian Paediatric Society; Society of Rural Physicians of Canada. Revisions to the Canadian Triage and Acuity Scale paediatric guidelines (PaedCTAS). CJEM. 2008; 10(3):224-43.
8. The Canadian Association of Emergency Physicians. Canadian Triage and Acuity Scale (CTAS) / Prehospital CTAS (Pre-CTAS). CTAS application: <http://caep.ca/resources/ctas> (Last accessed 2018th April 3rd)
9. Dieckmann RA, Brownstein D, Gausche-Hill M. The pediatric assessment triangle: a novel approach for the rapid evaluation of children. *Pediatr Emerg Care*. 2010;26(4):312-5.
10. Arroabarren E, Alvarez-Garcia J, Anda M, de Prada M, Ponce MC, Palacios M. Quality of the triage of children with anaphylaxis at the Emergency Department. *Pediatr Emerg Care*. Forthcoming 2018.
11. Farbman KS, Michelson KA, Neuman MI, Dribin TE, Schneider LC, Stack AM. Reducing Hospitalization Rates for Children With Anaphylaxis. *Pediatrics*. 2017;139(6). pii: e20164114.
12. de Silva IL, Mehr SS, Tey D, Tang ML. Paediatric anaphylaxis: a 5 year retrospective review. *Allergy*. 2008;63(8):1071-6.
13. Grabenhenrich LB, Dolle S, Moneret-Vautrin A, Kohli A, Lange L, Spindler T, et al. Anaphylaxis in children and adolescents: The European Anaphylaxis Registry. *J Allergy Clin Immunol*. 2016;137(4):1128-1137.e1.
14. Mugica-Garcia MV, Tejedor-Alonso MA, Moro-Moro M, Esteban-Hernandez J, Rojas-Perez-Ezquerria PE, Vila-Albelda C, et al. Self-Management of Anaphylaxis Is Not Optimal. *J Investig Allergol Clin Immunol*. 2015;25(6):408-15.
15. Ponce Guevara LV, Laffond Yges E, Gracia Bara MT, Moreno Rodilla E, Muñoz Bellido FJ, Lázaro Sastre M et al. Real life evaluation of the degree of compliance to recommendations of anaphylaxis guidelines in an emergency department of a tertiary hospital. *J Investig Allergol Clin Immunol*. 2018 Feb 21:0. doi: 10.18176/jiaci.0243. [Epub ahead of print]

16. Cabrera M, Ortiz-Menéndez JC, Garzón B, Barrios L. Need for Emergency Epinephrine to Treat Food Allergy Reactions in Schools in the Hortaleza District in Madrid. *J Investig Allergol Clin Immunol*. 2017; 27(1): 58-60.
17. <https://www.ncbi.nlm.nih.gov/mesh/68014218> (Last accessed 2018th April, 3rd)
18. Mínguez Navarro C, Ignacio Cerro MC. Niveles de triage en sistema de 5 niveles. In: Mínguez Navarro MC, Guerrero Márquez G, Ignacio Cerro MC, editors. *Manual de Clasificación y Triage del paciente Pediátrico en Urgencias*. First Edition. Majadahonda (Madrid): Ergon; 2015. p. 49-53
19. Ukiyama E, Nirasawa Y, Watanabe Y, Makino A, Masuko K, Mochizuki T, et al. Pediatric surgery triage: problems and improvements. *Pediatr Int*. 2012;54(4):501-3

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LEGENDS:

Figure 1. Left Column: Anaphylaxis triage procedure “before”. An anaphylaxis diagnosis by non-medical triage staff leads to level I priority. Right Column: Reference Card. Box 1: Immediate Attention Room. PAT: Paediatric Assessment Triangle or “first impression”. EA: Epinephrine autoinjector



1. Patient's history compatible with anaphylaxis, **two or more different organs involved**
 - Priority I (*Resuscitation Room*) or Priority II (*Box 1*)
 - Compatible Symptoms and Stable PAT: Priority II (*Box 1*)
 - Patient who used an EA: Priority II (*Box 1*)
2. Patient's history compatible with urticaria, **only skin involvement**: Priority IV (*Waiting Room*)
 - **Ask for symptom duration:**
 - > 6 hours: **Not anaphylaxis**
 - < 2 hours: **Ask for non-skin related symptoms** Priority II (*Box 1*)
3. **Time elapsed between exposure and onset of symptoms > 6-8 hours**: Priority IV (*Waiting Room*)

DISCRIMINATORS

- Previous anaphylaxis: II
- EA prescription: II
- EA use: II
- Food Allergy: III
- Bronchial Asthma: III

NURSE ACTIONS IN ANAPHYLAXIS:

- Anticipate to patient's needs: Oxygen, epinephrine, peripheral line, blood sample for tryptase determination (most useful 60-90min after the onset of symptoms)
- Monitor in Observation Room for 6-8 hours

Table 1. Legends: Demographics: Age: Mo: months; Sex: M: Male, F: female. Signs during medical examination: Yes or no. Initial triage level given by "first impression": A normal impression equals to initial level 5. Altered first impression ranges from 1 to 3 according to the number of altered signs. Anaphylaxis compatible observations: yes or no. EA: Epinephrine auto-injector. PEU: Paediatric Emergency Unit. PAT: Paediatric Assessment Triangle. *There is no triage level 4 in triage levels given by PAT. Accurately triaged patients: Patients triaged to levels I or II of medical attention. Waiting times for physician (median times, expressed in minutes).

TRIAGE FEATURES	G1	G2	P
DEMOGRAPHICS			
Age (MO)	58	60	1
Sex (M/F)	56.5%/36.5%	55.1%/44.9%	0.864
PREVIOUS ALLERGY CONDITIONS			
Allergy	33 (47.8%)	33 (47.8%)	1
Anaphylaxis	18 (26.1%)	22 (31.9%)	0.453
EA prescription	18 (26.1%)	22 (31.9%)	0.453
Bronchial Asthma	25 (36.2%)	14 (20.3%)	0.03
CURRENT EPISODE FEATURES			
SIGNS DURING MEDICAL EXAMINATION (Y/N)	38 (55.1 %)	43 (61.1 %)	0.605
EPINEPHRINE ADMINISTRATION AT PEU	42 (60.9%)	42 (60.9%)	0.607
REFERRAL			
Self-referred	57 (82.6%)	50 (72.2%)	0.03
TRIAGE LEVEL GIVEN BY PAT			
1	1 (1.4%)	2 (2.9%)	
2	-	5 (7.2%)	
3	9 (13%)	12 (17.4%)	
5*	59 (85.5%)	50 (72.5%)	

FIRST IMPRESSION (NORMAL VS ALTERED)	59 (85.5%)	50 (72.5 %)	0.101
ANAPHYLAXIS COMPATIBLE OBSERVATIONS	38 (55.1%)	53 (76.8%)	0.002
FINAL TRIAJE LEVEL			
I	14 (20.3%)	25 (36.2%)	
II	11 (15.9%)	25 (36.2%)	
III	38 (55.1%)	18 (26.1%)	
IV	6 (8.7%)	1 (1.4%)	
V	-	-	
ACCURATELY TRIAGED PATIENTS	25 (36.2%)	50 (72.2%)	0.001
ALLOCATION AT PEU			
Immediate Attention	37 (53.6%)	55 (76.4%)	
Treatment Room	9 (13%)	10 (13.9%)	0.001
Waiting Room	23 (33.3%)	7 (9.7%)	
WAITING TIMES FOR PHYSICIAN (min)	8	1	0.004

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