

Thought on the Activities of the General Surgery Department of Aného Hospital (Togo): In Light of the New Policies for Decentralising Surgical Patients between 2023 and 2024

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Abstract

Introduction/Aims: Begun in 2021, the creation of surgical departments according to surgical specialties was effective at the beginning of 2023, thus ending the era of the single large general surgery department bringing together all surgical patients at Aného hospital. What assessment and interpretation can be made from an administrative point of view of the activities specific to the general surgery department after this split? These are the questions which this work tries to find answers to. **Materials and Methods:** This was a retrospective and descriptive global study of the activities of the general surgery department from January 2023 to December 2024, *i.e.* over 24 months. The parameters studied were: the number of patients consulted, the main reasons for consultation, the number of patients hospitalised, the main causes of hospitalisation, the number of patients operated on and the performance indicators. **Results:** Over the two years, 1557 patients were consulted. In 2023 and 2024, the largest numbers of patients consulted were recorded respectively in August, 66 cases and in April, 269 cases. The main reasons for consultation were abdominal hernia tumefactions in 27.10% ($n = 422$); leg ulcers and infected wounds in 21.07% ($n = 328$) and abdominal pain in 19.14% ($n = 298$). In total 781 patients were hospitalised and 698 were operated on out of 1557, *i.e.* 50.16% and 44.83% respectively. Hernias were the main reason for hospitalisation, 342 cases *i.e.* 43.79% of hospitalised patients; peritonitis and appendicitis represented 4.74% ($n = 37$) and 3.84% ($n = 30$) respectively. Postoperative development was favorable in 98.69% ($n = 303$) and 98.10% ($n = 465$) of cases in 2023

and 2024 respectively. Mortality rates were 0.32% ($n = 1$) in 2023 and 0.42% ($n = 2$) in 2024 due to either septic shock or haemorrhagic shock. The evacuation rate of patients to other hospitals was 0.97% ($n = 03$) and 1.47% ($n = 07$) in 2023 and 2024 respectively. Bed occupancy and rotation rates were 22.41% and 2.40% in 2023 and 27.81% and 3.71% in 2024 respectively. **Conclusion:** The general surgery department, the mother surgical specialty, remains at the heart of the other surgical departments, with an assessment which does not betray the desire to always serve well from year to year. A subsequent accounting analysis of its activities will determine its financial weight in the Aného hospital budget and will enable us to support our various grievances to politicians.

Keywords

Activities, General Surgery Department, Assessment, Aného-Togo

1. Introduction

Created in 1955, the Aného Prefectural Hospital Centre (APHC) is one of the oldest peripheral hospital centres with a surgical antenna in the South of Togo. Located in a town of 25,000 inhabitants [1], the APHC serves, apart from local populations, those of surrounding localities and neighbouring country (Benin). This is a hospital whose attendance has continued to increase in recent years with a financial budget that is always balanced in terms of expenditure and income. The general surgery department has always been at the heart of the APHC's activities and concentrates on all surgical patients. However, the effective creation at the beginning of 2023 of the various surgical departments with corresponding specialists by the supervising ministry has made possible a segregation of patients according to pathologies; even though all these new specialties are housed in the general surgery department [2]-[5]. The annual report that was generally done for a large surgical department had to be split according to the different surgical departments or specialties from the year 2023. Under these conditions, what assessment can be made of the activities specific to the general surgery department from an administrative point of view? What interpretation can be made of this assessment? These are the questions which this work tries to find answers.

2. Materials and Methods

This was a retrospective and descriptive global study of the activities of the general surgery department from January 2023 to December 2024, *i.e.* over 24 months. The general surgery department is headed by a general surgeon; and shares its paramedical and support staff as well as its premises (resuscitation, operating room and hospitalisation rooms) with the other surgical services of the APHC (urology, traumatology, pediatric surgery, maxillofacial surgery but also gynecology concerning the operating room). It has five hospitalisation rooms with a total

capacity of 35 beds. The activities of the service can be summarised as consultations, surgical interventions and follow-up of hospitalised patients. The materials of this study consisted of registers of the service activity reports and documents of the annual reviews of the activities of the APHC to the supervising ministry. The parameters studied were: the number of patients consulted, the main reasons for consultation, the number of patients hospitalised, the main causes of hospitalisation, the number of patients operated on and the performance indicators. Among the performance indicators, we recall the following definitions [6]:

- Admission rate: it is the number of hospitalised patients reported to the number of new cases consulted.
- Medium length of stay: it is the whole of total days of hospitalisation reported to the number of hospitalised patients.
- Bed occupancy rate: it is the medium percentage of occupancy of a bed capacity of a health facility; it is calculated by reporting the days of hospitalisation to the number of functional beds during a given period (generally monthly or annual) in order to indicate the degree of use of the available beds during this period and to show the performance and efficiency of the hospital in question.
- Bed rotation coefficient: it measures the average number of patients per hospital bed for a given period.

For each patient, studied parameters were recorded. The data obtained were entered into a design form using Microsoft Office, Excel 2013 software.

There is no ethics committee at APHC, but administrative have been obtained and the confidentiality was respected.

3. Results

Over the two years, 1557 patients were consulted in the general surgery department. In 2023 and 2024, the largest numbers of patients consulted were recorded respectively in August, 66 patients and in April, 269. The distribution of patients consulted by year and by month is shown in **Figure 1**. The main reasons for consultation were abdominal hernia tumefactions in 27.10% ($n = 422$); leg ulcers and infected wounds in 21.07% ($n = 328$) and abdominal pain in 19.14% ($n = 298$). During the study period, 781 patients were hospitalised and 698 operated on out of 1557, *i.e.* 50.16% and 44.83% respectively. The highest numbers of patients hospitalised monthly were 29 in May 2023 and 94 in April 2024. The evolution of the number of patients hospitalised per year and according to the months is shown in **Figure 2**. Hernias of all anatomical-pathological forms combined were the main reason for hospitalisation, 342 patients *i.e.* 43.79% of hospitalised patients; peritonitis and appendicitis represented respectively 4.74% ($n = 37$) and 3.84% ($n = 30$) of hospitalised patients. The main pathologies constituting the reasons for hospitalisation are summarised in **Table 1**. In relation to the service performance indicators (**Table 2**), post-therapeutic development was favorable in 98.69% ($n = 303$) and 98.10% ($n = 465$) of cases in 2023 and 2024 respectively. Mortality rates were 0.32% ($n = 1$) in 2023 and 0.42% ($n = 2$) in 2024. The probable causes of death were septic shock in two cases complicating leg gangrene and generalised

post-abortion peritonitis; then one case of haemorrhagic shock complicating a penetrating abdominal wound. No autopsy was performed to confirm the causes of death. The evacuation rate of patients to the Capital University Hospital Centre was 0.97% (n = 03) and 1.47% (n = 07) respectively in 2023 and 2024. The bed occupancy and rotation rates were 22.41% and 2.40% respectively in 2023 then 27.81% and 3.71% in 2024.

Table 1. Showing the main reasons for hospitalisation in the general surgery department in 2023 and 2024.

	Number	Percentage
Hernias	342	43.79%
Chronic wound/necrotizing fasciitis	87	11.14%
Diabetic feet	29	03.71%
Appendicitis	30	03.84%
Peritonitis	37	04.74%
Intestinal obstruction	23	02.94%
Goitre	12	01.53%
Thermal burn	10	01.28%
Abdominal bruises/wounds	13	01.66
Acute cholecystitis	09	01.15%
Perianal suppurations/Anal fistulas	08	01.02%
Haemorrhoids	06	0.77%
Others*	175	22.41%
Total	781	100

*Lipoma, cyst, abscess and myositis, wound erysipelas, phlegmon.

Table 2. Showing the performance indicators of the general surgery department in 2023 and 2024.

	2023		2024	
	N	%	N	%
Favorable evolution	303	98.69	465	98.10
Mortality rate	01	0.32	02	0.42
Autopsy rate	00	0.00	00	0.00
Escape rate	00	00	00	00
Evacuation rate	03	0.97	07	01.47
Postoperative suppuration rate	04	1.30	06	1.26
Total number of hospital days	2864	-	3553	-
Admission rate	-	67.4	-	65.83
Medium length of stay	09	-	07	-
Bed occupancy rate	-	22.41	-	27.81
Bed rotation rate	-	2.40	-	3.71
Hospitalised patients	307		474	

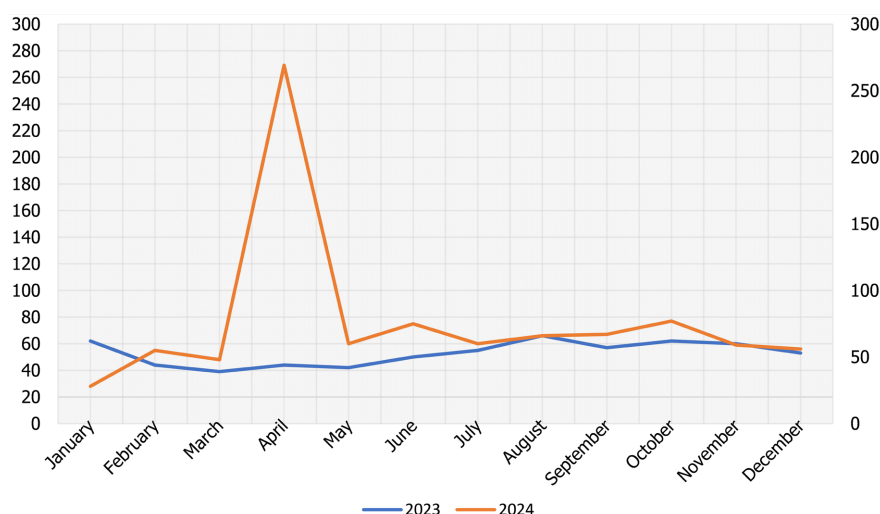


Figure 1. Showing the evolution of consultations from January to December during 2023 and 2024.

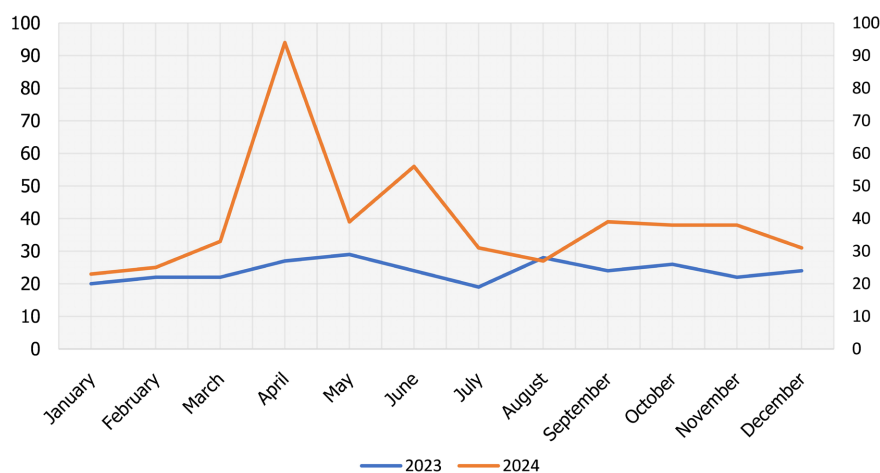


Figure 2. Showing the evolution of Hospitalisations from January to December during 2023 and 2024.

4. Discussions

We conducted a retrospective and descriptive global study over a period of 24 months in the general surgery department of the APHC. This was a study that reported general data from a surgical point of view without getting bogged down in surgical technical details or the characteristics of the populations concerned and also from an administrative point of view by specifying the indicators on which the authority will be able to judge the activities of the department. The interest of such a presentation of the activities of the department is to make possible its optimal use by the authorities in political decision-making to improve or consolidate the achievements of the department using performance or below-average performance indicators if necessary.

Apart from the peaks in consultation (269 patients) and hospitalisation (94 patients) in April 2024, we can say from **Figure 1** and **Figure 2** that the attendance

of the service seems constant during the 24 months. The bursts in activities in April 2024 can be explained by the realisation of a traveling surgery mission in the service in March-April 2024 by the Togolese Surgical Society.

Hernias were the most regular reasons for consultation with a frequency of 27.10%. In a previous five-year study at APHC, Adabra *et al.* have already shown that hernias predominated in the reasons for consultation [7] as in the studies of Bugamba *et al.* [8]. The reasons mentioned by Adabra were related to the fact that APHC serves surrounding rural populations whose main activities are fishing and non-modernised agriculture, all risk factors for parietal hernias of the abdomen.

Chronic wounds and diabetic feet occupied a major place in the reasons for hospitalization; 116 patients *i.e.* 14.85%. They cause a public health problem nowadays given their prevalence of 1 to 2% of the general population; the high cost of their care and the deterioration of patients' living conditions [9]-[13]. The increase in the frequency of diabetic feet and chronic wounds could be explained by the westernisation of mores with the development of diabetes and obesity as a consequence.

All etiologies combined (appendicitis, peritonitis, acute intestinal obstruction, cholecystitis, abdominal trauma), abdominal surgical emergencies represented 14.33% of the reasons for hospitalization, predominantly non-traumatic. A prevalence of 20% was noted by Gaye *et al.* in 2016 in Dakar [14]. We have already expressed this prevalence at 11.60% [15] over the course of a five-year study and the predominance of non-traumatic etiologies was explained by delays in consultation linked either to ignorance of the seriousness of the ailment or to poverty [16] [17].

The analysis of performance indicators could be exposed to certain biases related to the fact that other surgical specialties share the premises of general surgery. Indeed, the bed occupancy rates of 22.41% and 27.81% respectively in 2023 and 2024 calculated from patients specific to general surgery do not reflect the reality in the department given that the same beds are occupied by trauma or orthopedics, urology, pediatric and maxillofacial surgery patients. And if we recalculate the real occupancy rates taking into account other surgical patients in the department, we end up with respective rates of 88.82% and 98.21%. Rates that far exceed the desired 80% standard. And this is an opportunity to draw the attention of decision-makers to find premises for each department in order to avoid overcrowding and premature wear of hospital beds. The bed rotation rates of 2.40% and 3.71% are in favour of full hospitalisation (around a rate of 1.4%) [6] in the department with long lengths of stay, respectively 2864 and 3553 in 2023 and 2024. This shows that outpatient surgical care is nonexistent in our department. This is a loss of earnings for the hospital; the good bed rotation rate in outpatient surgery is an indicator of profitability of the department [18].

The rates of evacuation of patients to a teaching hospital of the capital of 0.97% and 1.47% were more related to the anesthesiological precautions than the technical surgical nursing of patients. As a matter of fact, the absence of an anaesthetist

and resuscitator at the APHC forces us to refer or evacuate patients with ASA score IV (ASA for American Society of Anesthesiology) or likely to present anaesthetic difficulties or resuscitation problems in the post-operative period. Grievances must be reiterated for the allocation of anaesthetists and resuscitators in this centre which already has seven surgical departments with corresponding specialists.

5. Conclusion

The creation of new surgical services at Aného Hospital enables diversity in the care offered to the population. It must be accompanied by the establishment of premises and personnel dedicated to each surgical specialty in order to ensure optimisation of activities. General surgery, the mother surgical specialty, will remain at the heart of these services, with an assessment that does not betray the desire to always serve well from year to year. A subsequent accounting analysis of its activities will determine its financial weight in the budget of Aného Hospital and will enable us to support our various grievances to politicians.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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