Hospitalizations for chemotherapy-induced febrile neutropenia in patients with lung cancer in France from 2017 to 2020

EPH129

Zoé Densari[1], Gaëlle Désaméricq[1], Benoit Thomé[2], Gilles Freyer[3,4]

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BACKGROUND

Febrile neutropenia (FN) is a severe complication of chemotherapy, associated with increased morbidity and mortality. Lung cancer is the most common cancer type associated with FN[1,2] however, few data are available in the literature. This study aimed to estimate the clinical and economic burden of hospitalization for FN among incident lung cancer patients treated with chemotherapy in France.

METHODS

Study type

This is a retrospective observational study, using a French nationwide hospital database (Programme de Médicalisation des Systèmes d'information, PMSI).

Population

An algorithm was developed to select from the PMSI database:

- New patients treated with chemotherapy between December 2017 and November 2020 (first year of treatment) and,
- Having been hospitalized for FN between December 2017 and November 2020, with one month maximum between the two stays.

Patients with bone marrow transplantation, stem cell transplantation, radiation therapy, and hematologic malignancies were excluded.

Analyses

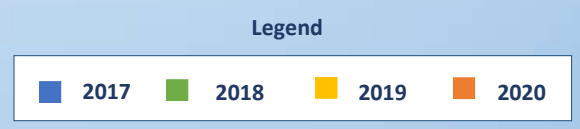
Analyses were descriptive by year considered (2017 to 2020):

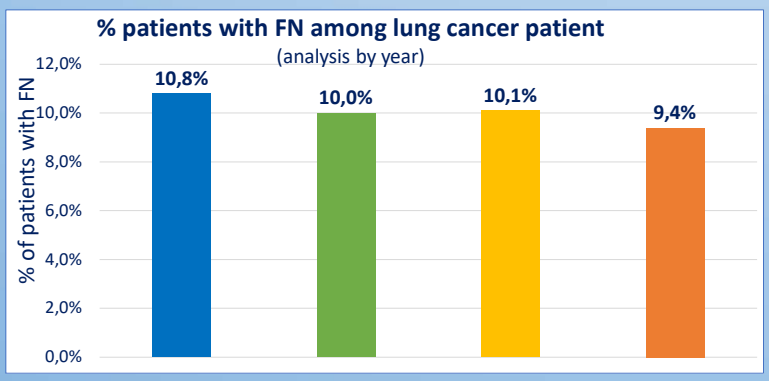
- Number and characteristics of inpatients
- Number and characteristics of stays
  - Average length of stay
  - Proportion of in-hospital deaths
  - Average cost of stay. Costs were valued according to the 2018 ENC (National Hospital Cost Study).

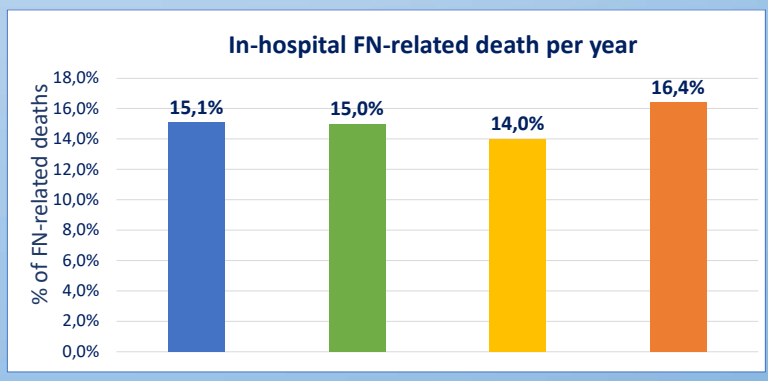
RESULTS

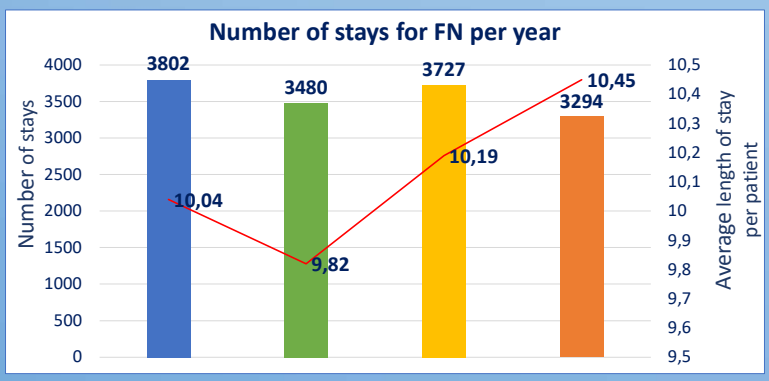
Characteristic of incident patients with lung cancer and FN in 2020* N = 2725	
% Men	68,7%
Mean (SD) age	66,7 (9,0) years

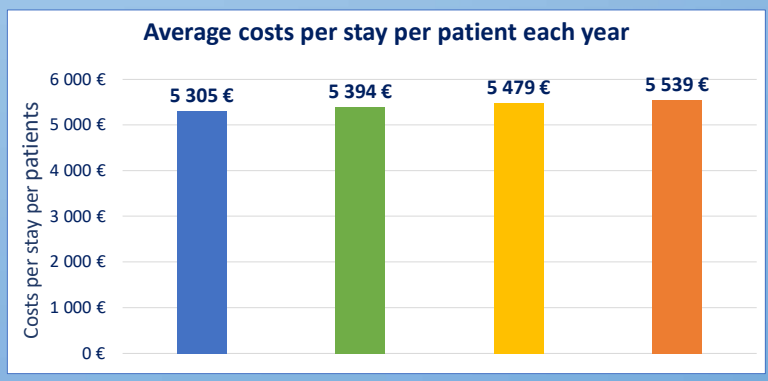
*No difference with previous years











CONCLUSION

- The incidence of patients with lung cancer experiencing chemotherapy-induced FN slightly decreased from 3,050 in 2017 to 2,725 in 2020.
- The in-hospital all-causes deaths rate remained high, at 16.4% in 2020
- The number of stays for FN slightly decreased, whereas the average length of stay per patient remained stable with 10.5 days in 2020.
- The average costs rose from €5,305 to €5,539 per stay and per patient.

Although the proportion of French patients with lung cancer hospitalized for chemotherapy-induced FN decreased from 10.8% in 2017 to 9.4% in 2020, possibly because of the covid epidemy[3], the number of stays for FN remained high, as did the proportion of in-hospital FN-related deaths. These figures highlight a real public health problem, and thus further research is needed for FN prevention.

REFERENCES

[1]Li and al. 2020
[2]Aagard and al. 2020
[3]Kaya and al. 2022

DISCLOSURE

GF and BT have no conflict of interest to declare. ZD and GD are full-time employee of Amgen..

FUNDING

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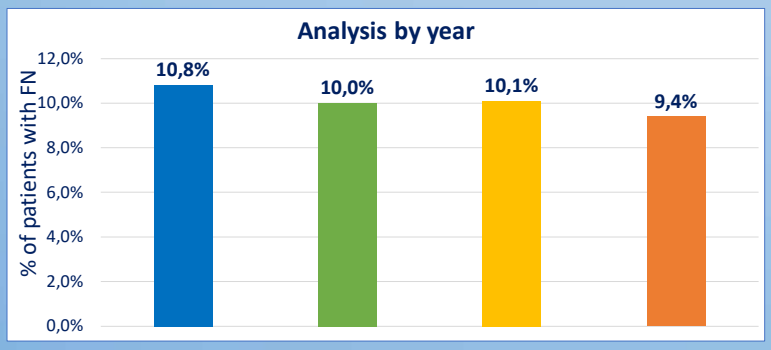
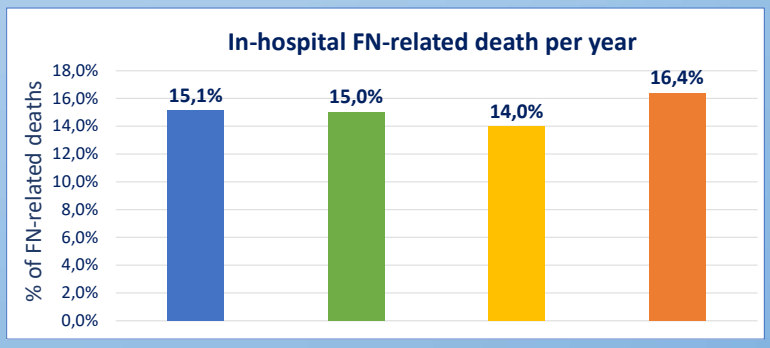
RESULTS

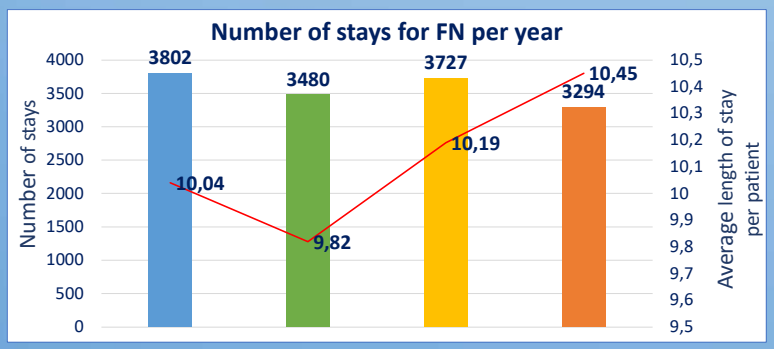
Characteristic of patients with lung cancer and FN in 2020* N = 12 221	
% Men	68,7%
Mean (SD) age	66,7 (9,0) years

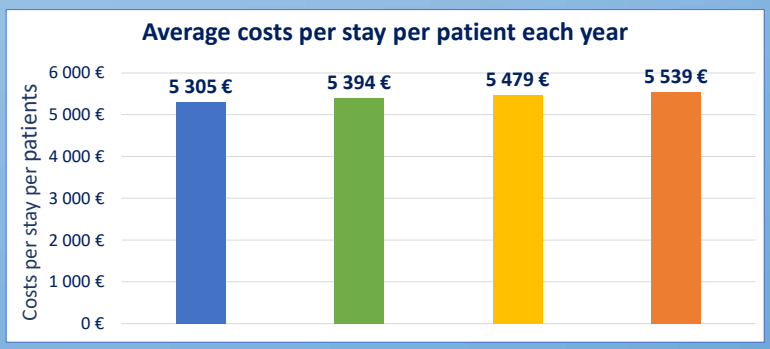
*No difference with previous years

Legend: 2020 2019 2018 2017









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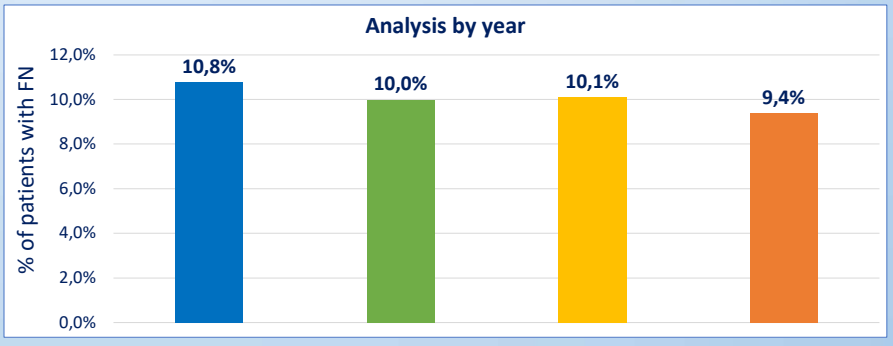

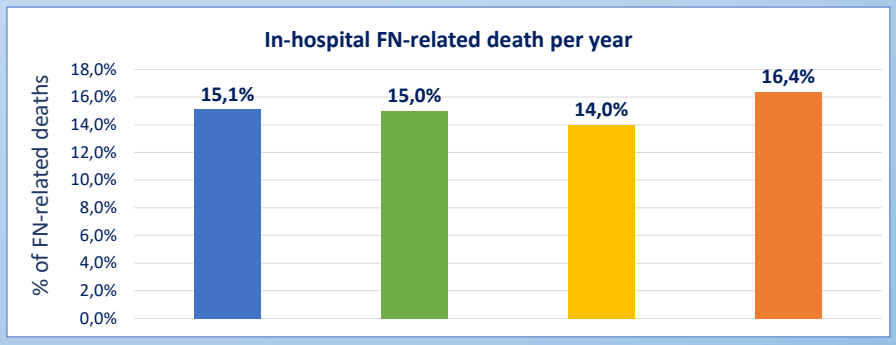

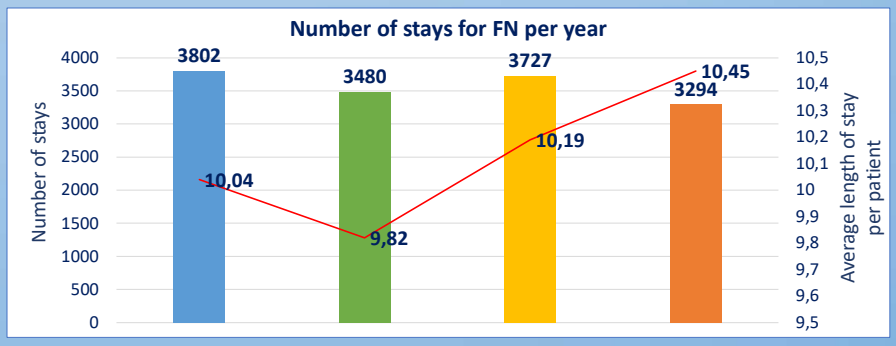

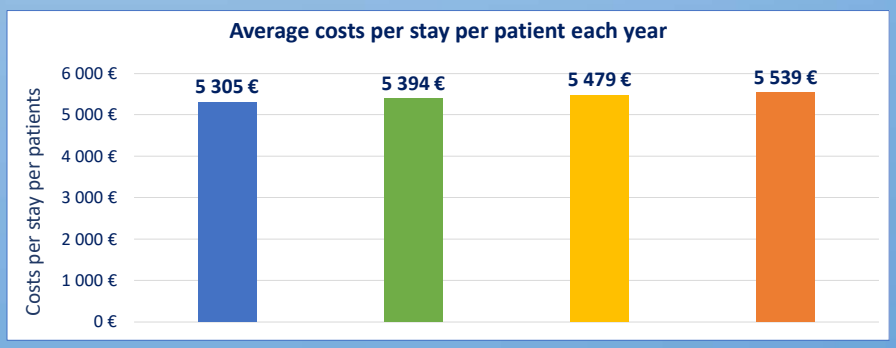

Legend: 2020 2019 2018 2017

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