Does leaving hospital early after chemotherapy affect the risk of infections in people with acute myeloid leukemia or myelodysplastic syndrome?

Date of summary: December 2019
A review of medical records from August 2014 to July 2018

The full title of this abstract is: Comparative Analysis of Patterns of Infectious Complications of Outpatient vs Inpatient Care Following Intensive Induction Chemotherapy for Adults with Acute Myeloid Leukemia (AML) or Other High-Grade Myeloid Neoplasms

This study looked at patients receiving standard treatments in a real-world setting. The treatments given were not experimental.

This summary reports the results of only one study. The results of this study might be different from the results of other studies that the researchers look at.

More information can be found in the scientific abstract of this study, which you can access here:
View ASH Abstract

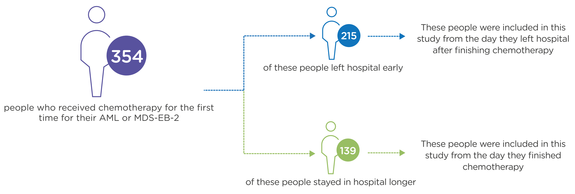
Click to find out how to say tricky medical terms

- **Myelodysplastic syndromes** <MY-eh-loh-dis-PLAS-tik SIN-dromes>
- **Myeloid leukemia** <MY-eh-loyd loo-KEE-mee-ah>

What did this study look at?

- Acute myeloid leukemia (AML for short) is a type of cancer that affects the white blood cells.
  - In AML, the body produces too many of a certain type of white blood cell that doesn't develop properly.
  - Acute means that the cancer progresses quickly.
- Myelodysplastic syndromes (MDS for short) are a group of rare blood cancers where the blood-forming cells in the bone marrow don't develop properly.
  - In some people, MDS can lead to AML.
  - People with a type of MDS called MDS-EB-2 often receive similar treatments as people with AML.
- People with AML or MDS-EB-2 usually receive chemotherapy treatment in hospital. Although chemotherapy can kill the cancer cells, it can also kill normal blood cells. This can increase the chance of people getting infections, which can be serious.
  - People having chemotherapy usually receive medicines such as antibiotics to prevent infection. They receive these medicines until their normal blood cells have returned. During this time, people may either:
    - stay in hospital until they fully recover from the treatment, or
    - leave hospital early.
      - Leaving hospital early means leaving within 3 days of finishing chemotherapy, and attending hospital appointments for further tests and treatments.
- This study looked at people with AML or MDS-EB-2 who received chemotherapy at a particular hospital, where leaving early was normal. Researchers compared people who stayed in hospital longer with people who left hospital early.
  - This study is a real-word study. Real-world studies look at what happens to people in a real-life setting, rather than in a clinical trial.
- This summary focuses on whether leaving hospital early affected people's chances of:
  - getting an infection
  - being admitted to intensive care, or
  - living for more than 30 days after being included in the study.
- This summary also looks at different factors that might change the chance of getting an infection.

Who took part in this study?



What were the results of the study?

- The average age of people in this study was:
  - 58 years, for those who left hospital early
  - 57 years, for those who stayed in hospital longer.

Among people who left hospital early, the chance of getting an infection did not change depending on:

- Compared with people who did not have any infections, people who had one or more infections were:
  - more likely to be admitted to intensive care, and
  - equally likely to live for more than 30 days after being included in this study.
- Compared with the rest of the people in this study, people who developed a type of infection called gram-positive bacteremia:
  - were more likely to be admitted to intensive care
  - stayed in hospital for longer, on average, and
  - were less likely to live for more than 30 days after being included in this study.
- Compared with the rest of the people in this study, people who developed a fungal infection:
  - were equally likely to be admitted to intensive care
  - stayed in hospital for longer, on average, and
  - were equally likely to live for more than 30 days after being included in this study.

More results from this study can be found here:
View ASH Abstract

What were the main conclusions reported by the researchers?

- In this study, people who left hospital early were more likely to get an infection than people who stayed in hospital for longer.
  - Researchers saw this result regardless of the type of medicine people received or how far they lived from the hospital.
- Whether people left hospital early or stayed in hospital for longer, they were equally likely to:
  - go to intensive care, and
  - live for more than 30 days after being included in this study.
- Researchers are continuing to work out why people who left hospital early were more likely to get an infection than those who stayed in hospital longer.

Who sponsored this study?

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Pfizer would like to thank all of the people who took part in this study.

Further information

Click to show more information on the study and clinical trials in general

For more information on this study, please visit:
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For more information on clinical studies in general, please visit:
https://www.clinicaltrials.gov/ct2/about-studies/learn
http://www.cancerresearchuk.org/about-cancer/find-a-clinical-trial/what-clinical-trials-are

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