

Variations in non-pharmacological anti-infective measures in childhood leukemia – results of an international survey

Thomas Lehrnbecher,¹ Richard Aplenc,² Fernanda Rivas Pereira,³ Alvaro Lassaletta,⁴ Désirée Caselli,⁵ Jerzy Kowalczyk,⁶ Julia Chisholm,⁷ and Lillian Sung⁸ on behalf of the SIOP Supportive Care Working Group*

¹University of Frankfurt, Germany; ²Children’s Hospital of Philadelphia, PA, USA; ³Children’s Hospital, Gutierrez, Argentine Treatment Group of Acute Leukemias GATLA, Argentina, Buenos Aires; ⁴Hospital Niño Jesús, Madrid, Spain; ⁵Azienda Ospedaliero-Universitaria Meyer, Florence, Italy; ⁶Medical University, Lublin, Poland; ⁷Royal Marsden Hospital, Sutton, UK; ⁸The Hospital for Sick Children, Toronto, Canada

Citation: Lehrnbecher T, Aplenc R, Rivas Pereira F, Lassaletta A, Caselli D, Kowalczyk J, Chisholm J, and Sung L on behalf of the SIOP Supportive Care Working Group. Variations in non-pharmacological anti-infective measures in childhood leukemia – results of an international survey. Haematologica 2012;97(10):1548-1552. doi:10.3324/haematol.2012.062885

Online Supplementary Table S1. Variation of restriction score by country (only countries with ≥ 15 institutions included).

| | Social Restrictions (Maximum score 12) | | Pet Restrictions (Maximum score 10) | | Food Restrictions (Maximum score 16) | |
|----------------|---|------|--|------|---|------|
| | ALL | AML | ALL | AML | ALL | AML |
| Canada | 0-10 | 6-10 | 0-6 | 0-10 | 0-11 | 0-16 |
| United States | 0-12 | 0-12 | 0-8 | 0-10 | 0-13 | 0-16 |
| Italy | 4-10 | 6-12 | 0-10 | 0-10 | 2-16 | 8-16 |
| Germany | 2-12 | 0-12 | 0-10 | 0-10 | 0-16 | 4-16 |
| Spain | 0-12 | 0-12 | 0-10 | 0-10 | 0-16 | 0-16 |
| United Kingdom | 0-6 | 1-12 | 0-6 | 0-6 | 0-12 | 0-14 |
| Argentina | 3-12 | 3-12 | 3-10 | 5-10 | 2-16 | 7-1 |

Anti -Infective Practices in Pediatric AML and ALL

1. Introduction and General Information

We are performing an international survey on current practices regarding biological measures to prevent infections in children undergoing intensive chemotherapy for standard risk acute lymphoblastic leukemia (ALL) and acute myeloid leukemia (AML). The results of the survey will design prospective studies with the ultimate goal of improving quality of life for our patients by increasing the risk for serious infectious complications.

1. On behalf of which institution are you responding?

Institution:

City/Town:

State/Province:

Country:

2. How many children are diagnosed in your institution per year with de novo acute lymphoblastic leukemia (ALL)?

- <10
- 10-19
- 20-40
- >40

3. How many children are diagnosed in your institution per year with de novo acute myelogenous leukemia (AML)?

- <5
- 5-10
- >10

Anti -Infective Practices in Pediatric AML and ALL

2. ALL Supportive Care

The following questions are regarding the supportive care of a typical child with standard precursor ALL (not high risk or very high risk ALL) during intensive chemotherapy (i.e. induction, intensification etc)

The first portion of the ALL "Supportive Care" section relates to restrictions or avoidance of pets or food. For these questions, please select one of the possible answers for each item.

- Always restrictions Yes, suggest restrictions avoidance all the time in general
- Sometimes restrictions Yes, suggest restrictions or avoidance under certain circumstances during neutropenia). **If you choose this answer for any of the questions, please specify below.
- No restrictions No, usually no restrictions
- Restrictions Unknown I am not familiar with the restrictions at my institution

4. Do you recommend restrictions of social contact for a typical child with standard risk ALL, in the following circumstances:

| | Always restrictions | Sometimes restrictions | No restrictions | Restrictions unknown |
|--|-----------------------|------------------------|-----------------------|-----------------------|
| Indoor public places (e.g., restaurants, shopping centers, movie theaters) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Outdoor public place (e.g., parks, sport events) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Friends visiting patient at home | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Daycare | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Kindergarten | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| School beyond kindergarten | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

5. If you sometimes recommend restrictions of social contact, please specify the circumstances.

Anti -Infective Practices in Pediatric AML and ALL

6. Do you recommend restriction of pets in the home for a typical child with standard risk ALL, with the following animals:

| | Al ways restrictions | Someti mes restrictio | No restrictions | Restricti ons unknow |
|------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Dogs | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Cats | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Turtles | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Hamster/guinea pig | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Birds (e.g., budgie, parrot) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

7. If you sometimes recommend restrictions of pets in the home, please specify the circumstances.

8. Do you recommend food restrictions for a typical child with standard risk ALL, with the following items:

| | Al ways restrictions | Someti mes restrictio | No restrictions | Restricti ons unknow |
|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Raw sea food | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Raw meat | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Unpasteurized milk or cheese | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Uncooked and unpeeled vegetables | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Salad | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Nuts | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Take out food | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Tap water | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

9. If you sometimes recommend food restrictions, please specify the circumstances.

Anti - Infective Practices in Pediatric AML and ALL

3. ALL Supportive Care (continued)

10. Do you recommend wearing face masks in public, for a typical child with standard risk ALL ?

- Yes, suggest to wear in general
- No, usually do not suggest wearing
- Yes, suggest to wear under certain circumstances (e.g., during neutropenia). Please specify.

11. The above given recommendations regarding infection prevention for a typical child with standard risk-precursor ALL (not high risk or very high risk ALL) during intensive chemotherapy (i.e. induction, intensification etc) are defined by:

(Select all that apply)

- Standard operation procedures (SOP)
- General agreement
- Individual decision by physician
- Other (please specify)

12. The information and instruction given to parents about the above mentioned recommendations regarding infection prevention for a typical child with standard risk-precursor ALL (not high risk or very high risk ALL) during intensive chemotherapy (i.e. induction, intensification etc) are defined by:

(Select all that apply)

- Hand out
- Nurse
- Physician
- Other (please specify)

Anti-Infective Practices in Pediatric AML and ALL

13. Please add any additional comments that you may have regarding non-pharmacological practices to prevent infection in standard risk ALL:

Anti - Infective Practices in Pediatric AML and ALL

4. AML Supportive Care

The following questions are regarding the supportive care of a de novo AML patient during intensive chemotherapy

The first portion of the AML "Supportive Care" section relates to restrictions or avoidance of pets or food. For these questions, please select one of the possible answers for each item

- Always restriction Yes, suggest restrictions avoidance all the time in general
- Sometimes restriction Yes, suggest restrictions or avoidance under certain circumstances during neutropenia). **If you choose this answer for any of the questions, please specify below.
- No restrictions No, usually no restrictions
- Restriction Unknown I am not familiar with the restrictions at my institution

14. Do you recommend restrictions of social contact for a typical child with AML, in the following circumstances:

| | Always restrictions | Sometimes restriction | No restrictions | Restrictions unknown |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Indoor public places (e.g., restaurants, shopping centers, movie theaters) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Outdoor public place (e.g., parks, sport events) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Friends visiting patient at home | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Daycare | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Kindergarten | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| School beyond kindergarten | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

15. If you sometimes recommend restrictions of social contact, please specify the circumstances.

Anti -Infective Practices in Pediatric AML and ALL

16. Do you recommend restriction of pets in the home for a typical child with AML, with the following animals:

| | Always restrictions | Sometimes restrictions | No restrictions | Restrictions unknown |
|------------------------------|-----------------------|------------------------|-----------------------|-----------------------|
| Dogs | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Cats | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Turtles | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Hamster/guinea pig | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Birds (e.g., budgie, parrot) | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

17. If you sometimes recommend restrictions of pets in the home, please specify the circumstances.

18. Do you recommend food restrictions for a typical child with AML, with the following items:

| | Always restrictions | Sometimes restrictions | No restrictions | Restrictions unknown |
|----------------------------------|-----------------------|------------------------|-----------------------|-----------------------|
| Raw sea food | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Raw meat | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Unpasteurized milk or cheese | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Uncooked and unpeeled vegetables | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Salad | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Nuts | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Take out food | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Tap water | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

19. If you sometimes recommend food restrictions, please specify the circumstances.

Anti - Infective Practices in Pediatric AML and ALL

5. AML Supportive Care (continued)

20. Do you recommend wearing face masks in public for a typical child with AML?

- Yes, suggest to wear in general
- No, usually do not suggest wearing
- Yes, suggest to wear under certain circumstances (e.g., during neutropenia). Please specify.

21. The above given recommendations regarding infection prevention for a typical child with AML during intensive chemotherapy are defined by:
(Select all that apply)

- Standard operation procedures (SOP)
- General agreement
- Individual decision by physician
- Other (please specify)

22. The information and instruction given to parents about the above mentioned recommendations regarding infection prevention for a typical child with AML during intensive chemotherapy are defined by:
(Select all that apply)

- Hand out
- Nurse
- Physician
- Other (please specify)

23. Please add any additional comments that you may have regarding non-pharmacological practices to prevent infection in AML: