

Appendix 3: Summary of findings for the main outcomes.

TKI versus Non-TKI for pediatric Ph+ALL in randomized controlled trial

Patient or population: patients with pediatric Ph+ALL

Intervention: TKI with chemotherapy

Comparison: chemotherapy

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|--|---|----------------------------------|---------------------------------|--|----------|
| | Assumed risk chemotherapy | Corresponding risk TKI with chemotherapy | | | | |
| overall survival Follow-up: mean 3.1 years | 727 per 1000 | 587 per 1000 (287 to 901) | HR 0.68 (0.26 to 1.78) | 90 (1 study) | ⊕ ⊕ ⊖ ⊖ low ^{1,2,3} | |
| event free survival Follow-up: mean 3.1 years | 614 per 1000 | 451 per 1000 (234 to 741) | HR 0.63 (0.28 to 1.42) | 90 (1 study) | ⊕ ⊕ ⊖ ⊖ low ^{1,2,3} | |
| adverse drug reaction Follow-up: mean 3.1 years | 774 per 1000 | 635 per 1000 (488 to 836) | RR 0.82 (0.63 to 1.08) | 89 (1 study) | ⊕ ⊕ ⊖ ⊖ low ^{1,2,4} | |

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval; **RR:** Risk ratio; **HR:** Hazard ratio;

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

¹ blindness was high risk

² not applicable

³ the 95% CI included appreciable benefit or harm

⁴ the 95%CI for effect estimates were wide

TKI versus Non-TKI for pediatric Ph+ALL in cohort studies

Patient or population: patients with pediatric Ph+ALL

Intervention: TKIs

Comparison: Non-TKIs

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|-----------------------|--|------------------------------|---------------------------|------------------------------|---------------------------------|----------|
| | Assumed risk Non-TKIs | Corresponding risk TKIs | | | | |
| overall survival | 340 per 1000 | 99 per 1000 (56 to 177) | HR 0.25 (0.14 to 0.47) | 204 (3 studies) | ⊕⊕⊕⊖ moderate ¹ | |
| event free survival | 95 per 1000 | 25 per 1000 (12 to 55) | HR 0.25 (0.12 to 0.56) | 110 (2 studies) | ⊕⊕⊕⊖ moderate ¹ | |
| adverse drug reaction | 561 per 1000 | 566 per 1000 (359 to 891) | RR 1.01 (0.64 to 1.59) | 147 (2 studies) | ⊕⊕⊕⊖ moderate ¹ | |

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval; RR: Risk ratio; HR: Hazard ratio;

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

¹ the magnitude of the treatment effect is large

imatinib versus dasatinib for pediatric Ph+ALL in randomized controlled trial

Patient or population: patients with Ph+ALL

Intervention: imatinib

Comparison: dasatinib

| Outcomes | Illustrative comparative risks* (95% CI) | | Relative effect (95% CI) | No of Participants (studies) | Quality of the evidence (GRADE) | Comments |
|---|--|--------------------------------------|----------------------------------|---------------------------------|--|----------|
| | Assumed risk | Corresponding risk | | | | |
| | Dasatinib | Imatinib | | | | |
| overall survival Follow-up: mean 26.4 months | 880 per 1000 | 992 per 1000 (885 to 1000) | HR 2.26 (1.02 to 5.01) | 189 (1 study) | ⊕ ⊕ ⊖ ⊖ low ^{1,2,3} | |
| event free survival Follow-up: mean 26.4 months | 707 per 1000 | 945 per 1000 (789 to 995) | HR 2.36 (1.27 to 4.39) | 189 (1 study) | ⊕ ⊕ ⊖ ⊖ low ^{1,2,3} | |
| adverse drug reaction Follow-up: mean 26.4 months | 596 per 1000 | 578 per 1000 (459 to 733) | RR 0.97 (0.77 to 1.23) | 189 (1 study) | ⊕ ⊕ ⊖ ⊖ low ^{1,2,4} | |

*The basis for the **assumed risk** (e.g. the median control group risk across studies) is provided in footnotes. The **corresponding risk** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

CI: Confidence interval; RR: Risk ratio; HR: Hazard ratio;

GRADE Working Group grades of evidence

High quality: Further research is very unlikely to change our confidence in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate.

Very low quality: We are very uncertain about the estimate.

¹ the blindness was high risk

² not applicable

³ the 95% CI includes appreciable benefit or harm

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