Table 109. Strength of applicability for the body of evidence evaluating mortality due to bleeding in patients who had major orthopedic surgery

| Comparison | Strength of applicability | Conclusion with description of applicability |
| --- | --- | --- |
| Pharmacologic prophylaxis versus no prophylaxis | Low | Compared to no prophylaxis, patients who had major orthopedic surgery and received pharmacologic prophylaxis did not have a difference in the odds of mortality due to bleeding. Data is highly applicable to the use of enoxaparin or fondaparinux in hip replacement surgery, but has limited applicability to total knee replacement and hip fracture surgery. Data has limited applicability to primary and no applicability to revision surgery. Applicability is limited due to the short duration of follow up and because the trials available was conducted in Denmark and Japan. |
| Mechanical prophylaxis versus no prophylaxis | NA | No data |
| Oral antiplatelet agents versus oral vitamin K antagonists | NA | No data. |
| Oral antiplatelet agents versus mechanical prophylaxis | NA | No data |
| Injectable low molecular weight heparin agents versus injectable unfractionated heparin | Low | Compared to unfractionated heparin, patients who had major orthopedic surgery and injectable low molecular weight heparin agents did not have a difference in the odds of mortality due to bleeding. Applicability is limited due to the short duration of follow up and because the available trial was conducted in Spain. Data is highly applicable to primary hip fracture surgery. Data is not applicable to primary or revision total knee or hip replacement surgery. |
| Injectable low molecular weight heparin agents versus injectable or oral factor Xa inhibitors | Low | Compared to injectable or oral factor Xa inhibitors, patients who had major orthopedic surgery and received injectable low molecular weight heparin agents, did not had a difference in the odds of mortality due to bleeding. Applicability is limited due to the short duration of follow up. Data is highly applicable to primary hip fracture surgery. Data is not applicable to primary or revision total knee or hip replacement surgery. |
| Injectable low molecular weight heparin agents versus injectable or oral direct thrombin inhibitors | Low | Compared to injectable or oral direct thrombin inhibitors, patients who had major orthopedic surgery and received injectable low molecular weight heparin agents did not had a difference in the risk of mortality due to bleeding. Applicability is limited due to the short duration of follow up and because the trial was conducted outside of the United States. Data is highly applicable to primary total knee replacement surgery. Data is not applicable to primary or revision hip fracture or total hip replacement surgery. |
| Injectable low molecular weight heparin agents versus oral vitamin K antagonists | Low | Compared to oral vitamin K antagonists, patients who had major orthopedic surgery and received injectable low molecular weight heparin agents did not have a difference in the odds of mortality due to bleeding. Applicability is limited due to the short duration of follow up. Data is highly applicable to primary total knee replacement surgery. Data is not applicable to primary or revision hip fracture or total hip replacement surgery. |
| Injectable low molecular weight heparin agents versus mechanical prophylaxis | Low | Compared to oral vitamin K antagonists, patients who had major orthopedic surgery and received injectable low molecular weight heparin agents did not have a difference in the odds of mortality due to bleeding. Applicability is limited due to the short duration of follow up. Data is highly applicable to primary total hip replacement surgery. Data is not applicable to primary or revision hip fracture or total knee replacement surgery. |
| Injectable unfractionated heparin versus injectable or oral direct thrombin inhibitors | NA | No data |
| Injectable unfractionated heparin versus injectable or oral factor Xa inhibitors | NA | No data |
| Injectable unfractionated heparin versus mechanical prophylaxis | NA | No data |
| Oral vitamin K antagonists versus mechanical prophylaxis | NA | No data |
| Enoxaparin versus other low molecular weight heparin agents | NA | No data |
| Intermittent pneumatic compression by Kendall versus the Venaflow intermittent pneumatic compression device | NA | No data |
| ActiveCare intermittent pneumatic compression device versus Flowtron intermittent pneumatic compression device | NA | No data |
| Intermittent pneumatic compression versus graduated compression | NA | No data |
| Pharmacologic plus mechanical prophylaxis versus pharmacologic prophylaxis | NA | No data |
| Pharmacologic plus mechanical prophylaxis versus mechanical prophylaxis | NA | No data |
| Effect of prolonging prophylaxis for 28 days compared to prophylaxis for 7 to 10 days | NA | No data. |
| Inferior vena cava filter versus mechanical prophylaxis | NA | No data |

Abbreviations: NA=Not applicable