Guidelines for Elevated INR Adapted from TSG

No Significant Bleeding

INR > 3.0 but < 5.0

Lower the dose or omit a dose
Monitor more frequently and resume with adjusted dose when INR returns to therapeutic range.

INR ≥ 5.0 but < 9.0

Omit the next one or two doses
Monitor more frequently and resume with adjusted dose when INR returns to therapeutic range.

OR

Omit dose and give vitamin K (1 to 2.5mg) orally especially if patient has increased risk of bleeding

IF MORE RAPID REVERSAL BECAUSE PATIENT REQUIRES URGENT SURGERY

Vitamin K (≤ 5.0mg) orally and expect INR to decrease in 24 hours, if still high give additional Vitamin K (1 to 2 mg) orally.

INR ≥ 9.0

Hold warfarin and give higher dose of Vitamin K (2.5-5mg) orally and expect INR will reduce substantially in 24 to 48 hours.
Monitor INR more frequently
Give additional Vitamin K if necessary and resume with adjusted dose when INR returns to a therapeutic range.

Bleeding

FOR SERIOUS BLEEDING AT ANY ELEVATION OF INR

Hold warfarin
Vitamin K (10mg by infusion)
FFP
Prothrombin Complex Concentrates
Recombinant Factor VIIa
Can repeat Vitamin K if needed

FOR LIFE-THREATENING BLEEDING

Hold warfarin
FFP
Prothrombin Complex Concentrates
Recombinant Factor VIIa
Vitamin K (10mg by slow IV infusion)
Repeat if necessary

POTENTIAL ORDERS BASED ON CHEST 2008 RECOMMENDATIONS:

IF INR greater than upper limit of target range but less than 5:

- If no evidence of bleeding:
  - Hold warfarin
  - Consider Vitamin K 2.5 mg orally
  - Restart warfarin at original dose once INR in therapeutic range.
- If rapid reversal required
  - Discontinue warfarin
  - Vitamin K 2.5 mg orally once

IF INR is 5-8.9:

- If no evidence of bleeding:
  - Hold warfarin
  - Consider giving Vitamin K 2.5 mg orally
  - Restart warfarin at adjusted dose once INR in therapeutic range.
- If rapid reversal required:
  - Discontinue warfarin
  - Give Vitamin K 2.5 mg orally once.

IF INR greater than 9:

- If no evidence of bleeding:
  - Hold warfarin until INR in therapeutic range.
  - Give Vitamin K 5mg orally.
  - Restart warfarin at adjusted dose once INR in therapeutic range.
- If rapid reversal required:
  - Discontinue warfarin
  - Consider Vitamin K 10mg slow IV infusion once.
  - Repeat INR in 8 hours and give Vitamin K based on value
  - Consider 4 units FFP

IF any INR value with serious or life threatening bleeding:

- Discontinue warfarin
- Vitamin K 10 mg slow IV infusion once.
- 4 units FFP
- Recombinant Factor VIIa if suspected ICH