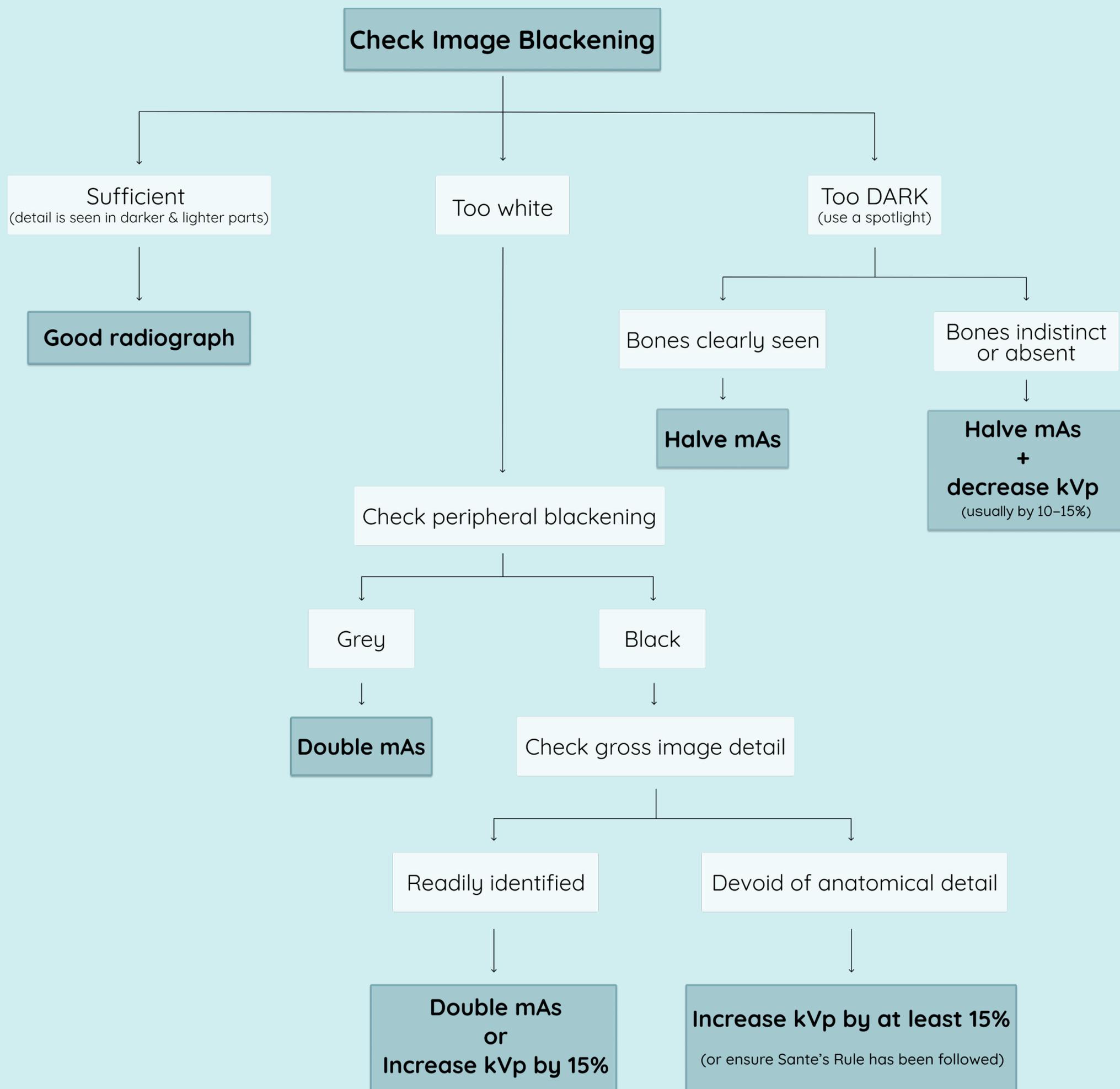


# Radiograph quality evaluation



# Radiograph quality evaluation



# Sante's rule:

Calculation for determining an approximate amount of kilovoltage (kVp) required for a specific anatomic area

## Bony structures

$$\text{kVp} = [\text{Thickness of the region to be radiographed (in cm)} \times 2] + 40$$

## Thorax (long scale contrast)

$$\text{kVp} = [\text{Thickness of the region to be radiographed (in cm)} \times 2] + 50$$

## Abdomen (short scale contrast)

$$\text{kVp} = [\text{Thickness of the region to be radiographed (in cm)} \times 2] + 30$$

# 15% rule:

Increasing the kVp by 15% has the same effect as doubling the mAs

Decreasing the kVp by 15% has the same effect as halving the mAs

# References

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Kirberger, R. M. (1999). Radiograph quality evaluation for exposure variables - a review, 40(3), 220-226.  
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Created January 2026



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