

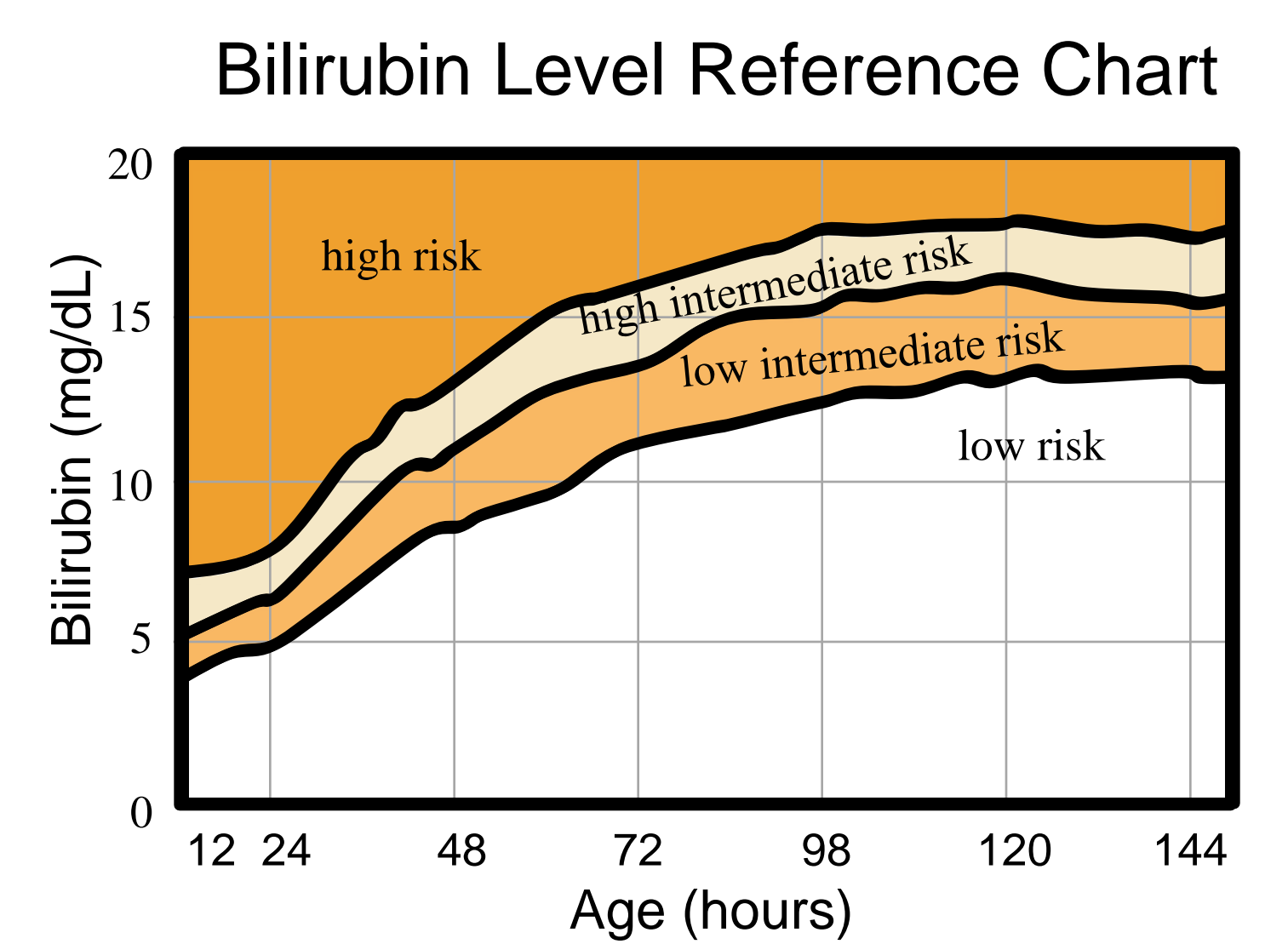
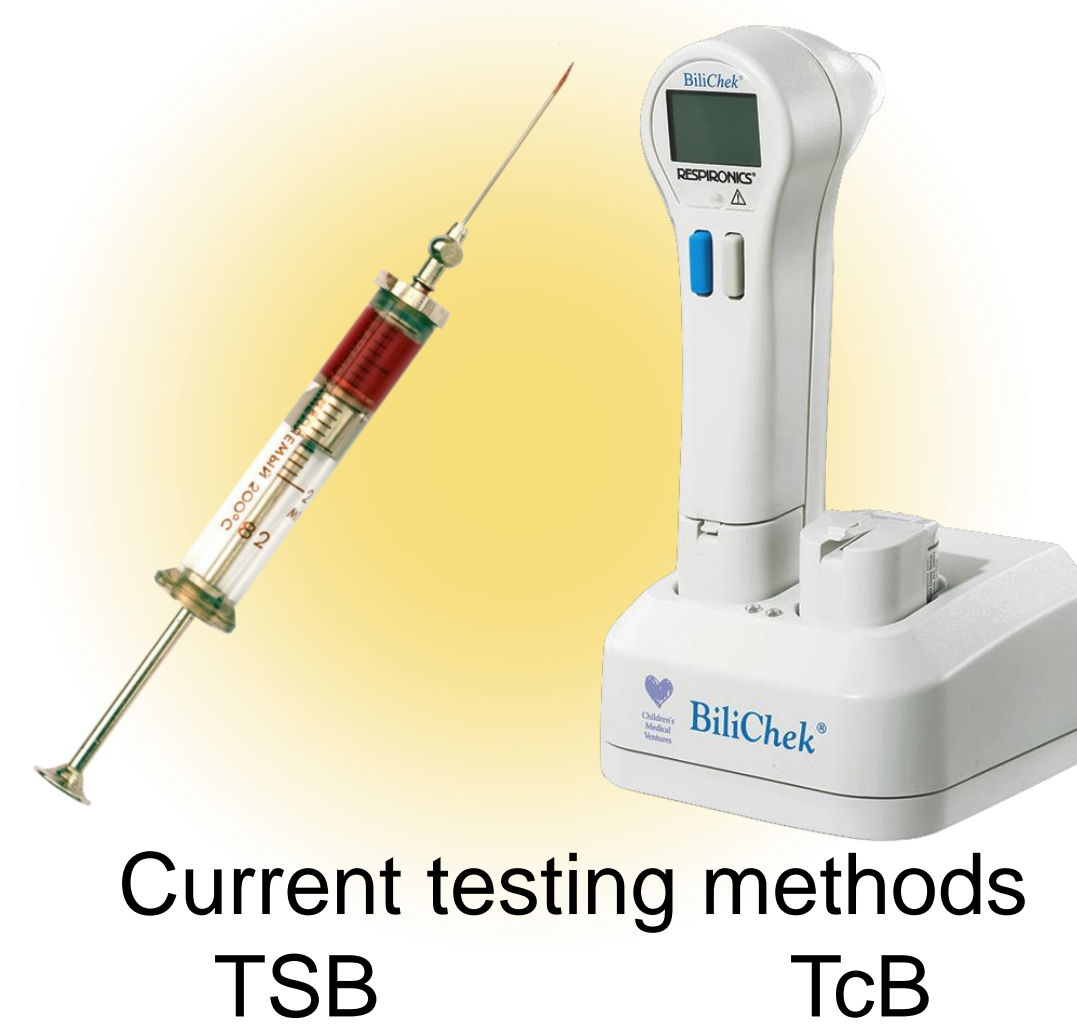
BiliCam

Using Mobile Phones to Monitor Newborn Jaundice

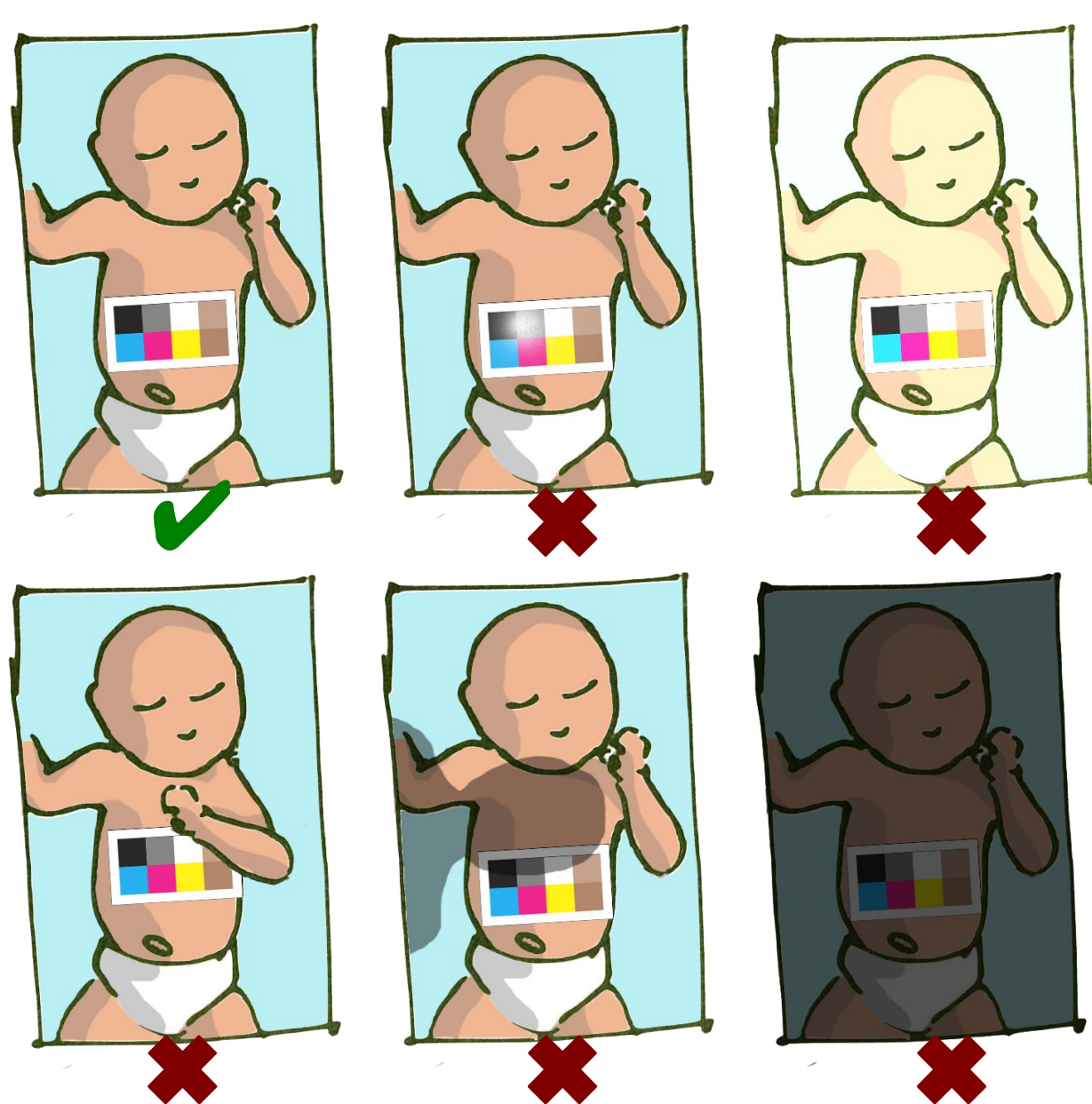


Bilirubin

- High bilirubin levels yellow the skin
- Common: visible in 84% of newborns
- Extreme levels lethal, but treatable
- Every newborn tested



Technology



Constraints via UI

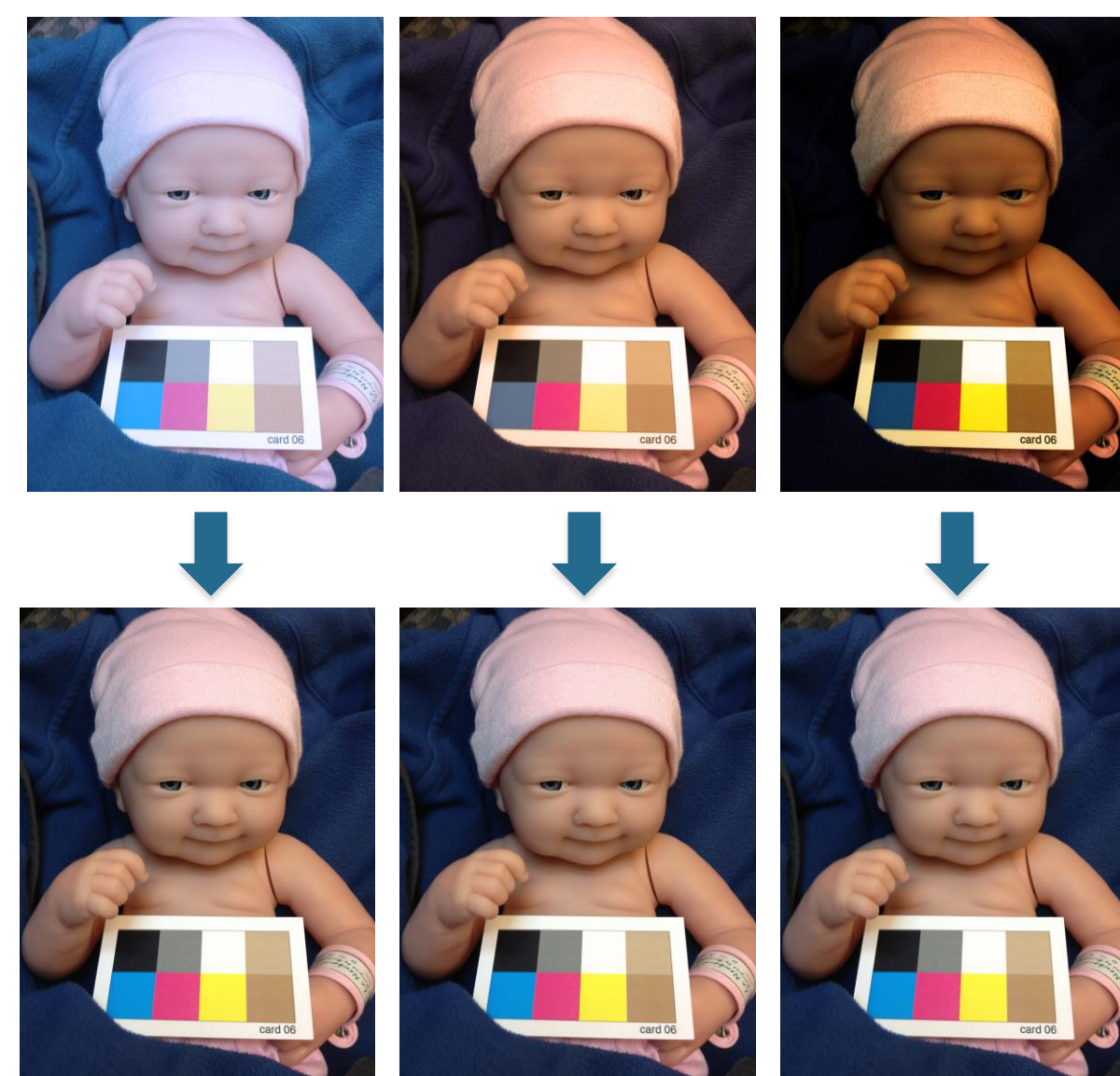


Image Processing



Bilirubin Estimation

Evaluation

- Clinical Study
- 100 newborns
- Ground Truth: TSB (blood draw)
- Control: TcB

Results

- BiliCam
0.85 rank order correlation
2.0 mg/dl mean error
- TcB
0.92 rank order correlation
1.5 mg/dl mean error

