CareCruiser
Interactive Exploration of Effects of Therapeutic Actions on a Patient's Condition to Improve Treatment

Patient data + clinical actions
- patient parameter (e.g., oxygen saturation)
- clinical action (e.g., lowering oxygen supply)

Step-wise exploration of the data
1. Aligning clinical actions
2. Color coding of effects
3. Focus&Context window
4. Filtering color-coded information
5. Detecting patterns of effects

Aligning all instances of one clinical actions (e.g., lowering oxygen supply)

Different color schemes for color coding of curve events
- Distance from intended value range
  - Intended values
  - Far away from intended values
- Progress from initial value (at start of the treatment)
  - Bettering
  - Start value
  - Worsening
  - Rise
  - Drop

Color coding the slope of the curve

Focus & Context window
- Improving treatment!
- Filter color coding to highlight only events of interest

Evaluation
1. Feedback from a medical expert in an early design phase
2. Heuristic usability evaluation
3. User testing with two target users (i.e., medical experts)

Conclusion
1. Step-wise interactive exploration of effects of clinical actions
2. Leads to new insights and hypotheses
3. Improvement of clinical treatment

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