



Using Technology-enabled Smart Systems to Improve The Value of Care

May 4, 2016

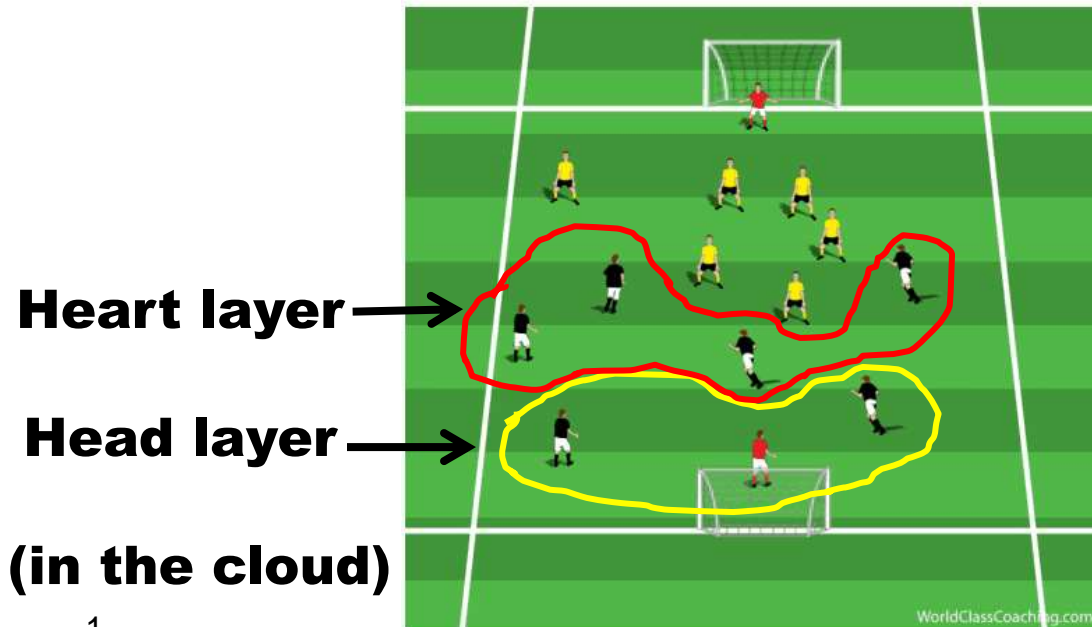


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Forecasted “DNA” of 2024 US Bright Spots: A 3-Layer 24/7 AI-based Control System

- **Heart: caring, physical skills & fast-thinking**
- **Head: broad perspective on health & slow-thinking**
- **Heft: continuous active care guidance system**





An Illustrative 3-layer Control System Helped 56 US ICUs Provide More with Less

- **ICU mortality** ↓ **25%**
- **Hospital mortality** ↓ **15%**
- **ICU & hospital LOS** ↓ **15%**

Lilly CM, McLaughlin JM, Zhao H, et al. A Multicenter Study Of ICU Telemedicine Reengineering Of Adult Critical Care. *Chest*. 2014;145(3):500-507.





Demonstrating AI-Based Prediction and Workflow to Improve Value

- **Predicting Cost “Blooms”**
- **Perfecting ICU processes & saving staff time**
- **Preventing costly senior health crises**
- **Preventing kids developmental impairment**
- **Protecting hospitalized kids from infections**



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Closing Thoughts



- **Value-based incentives will encourage use of smart systems to improve value of US care**
- **How quickly care co-evolves is a medical ethical issue**

