

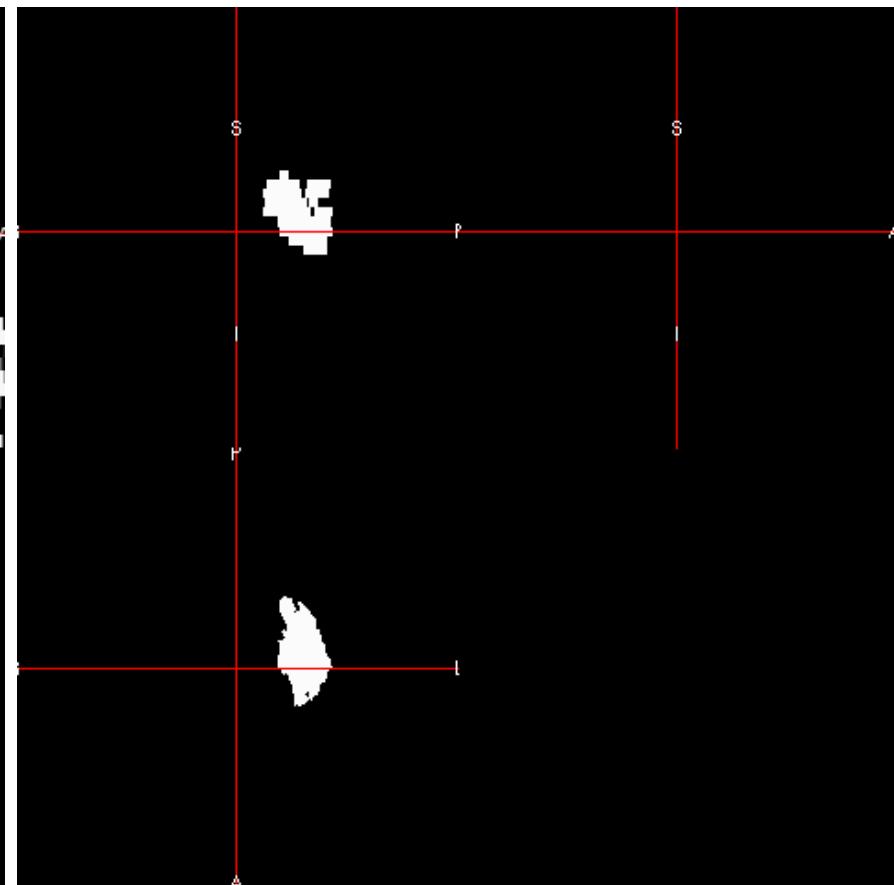
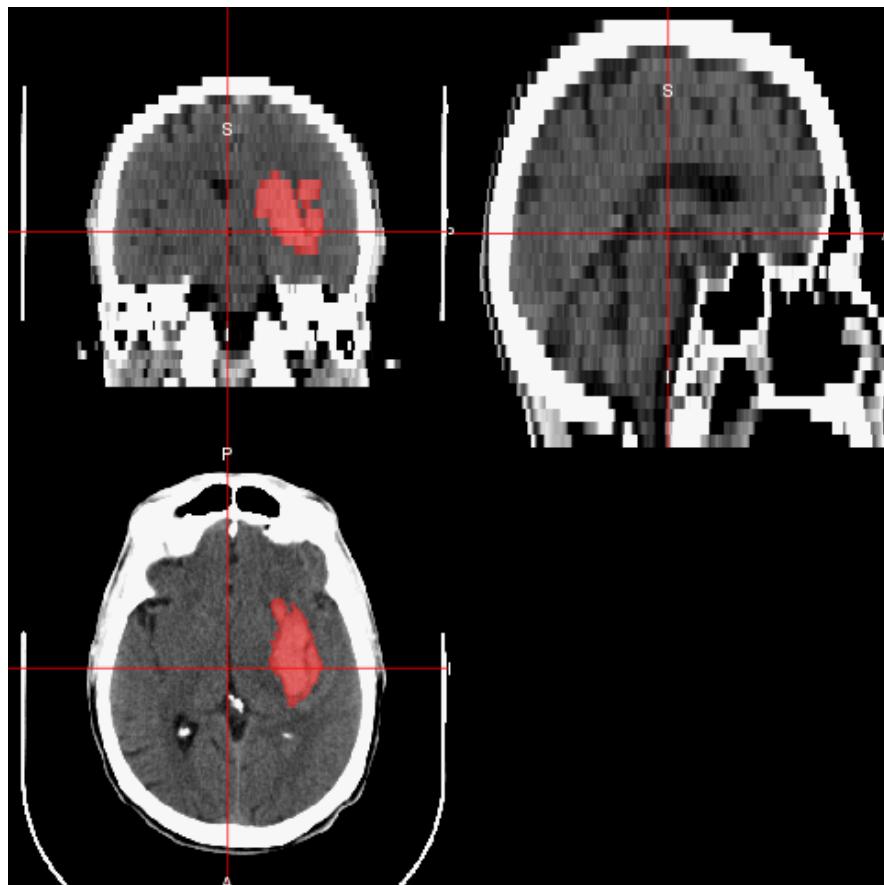
# Automated Intracerebral Hemorrhage Segmentation of CT Scans

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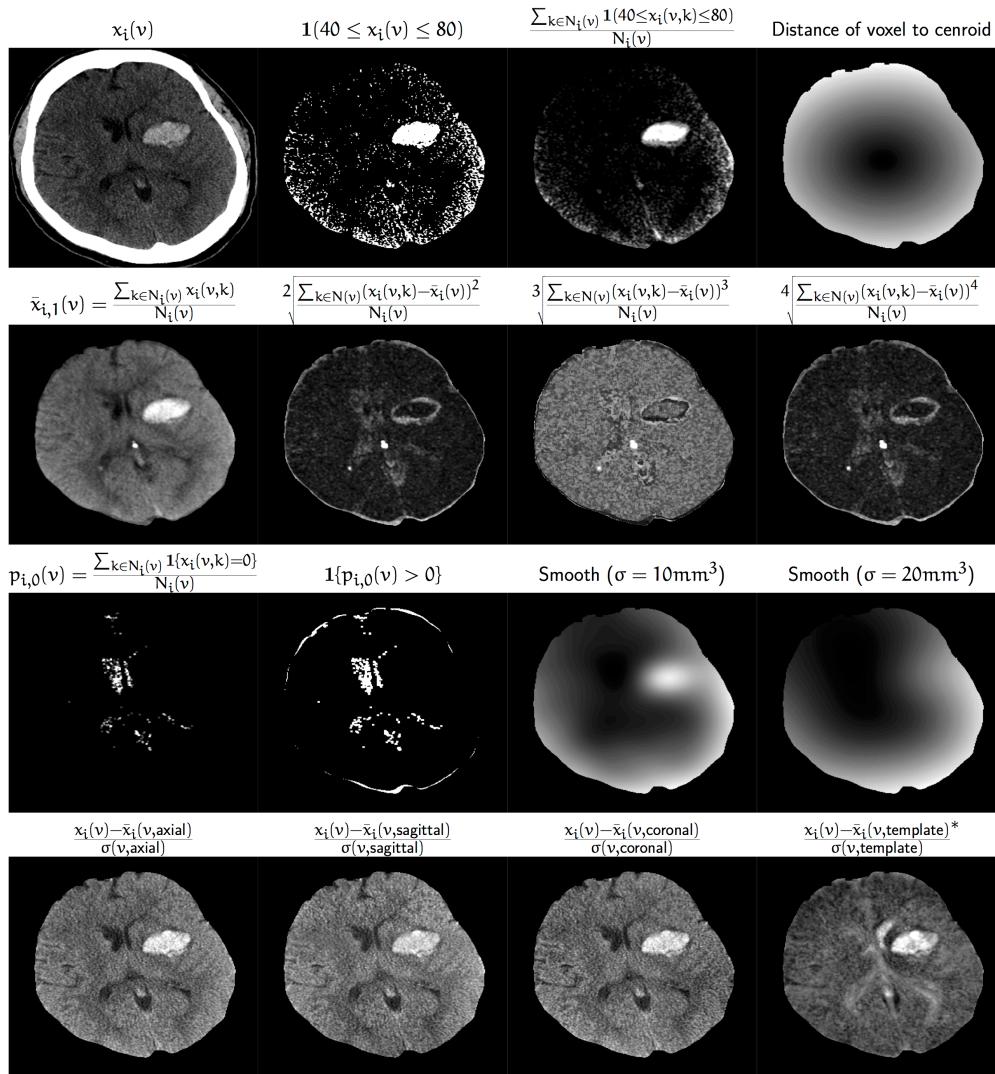
# What is Intracranial hemorrhage?

- When a blood vessel ruptures into
- tissue: intracerebral hemorrhage (ICH)
- ventricles: intraventricular hemorrhage (IVH)
- ≈ 13% of strokes

# Get ICH Mask from Manual Segmentation



# Covariates



# PltcHPERFECT uses Logistic Regression

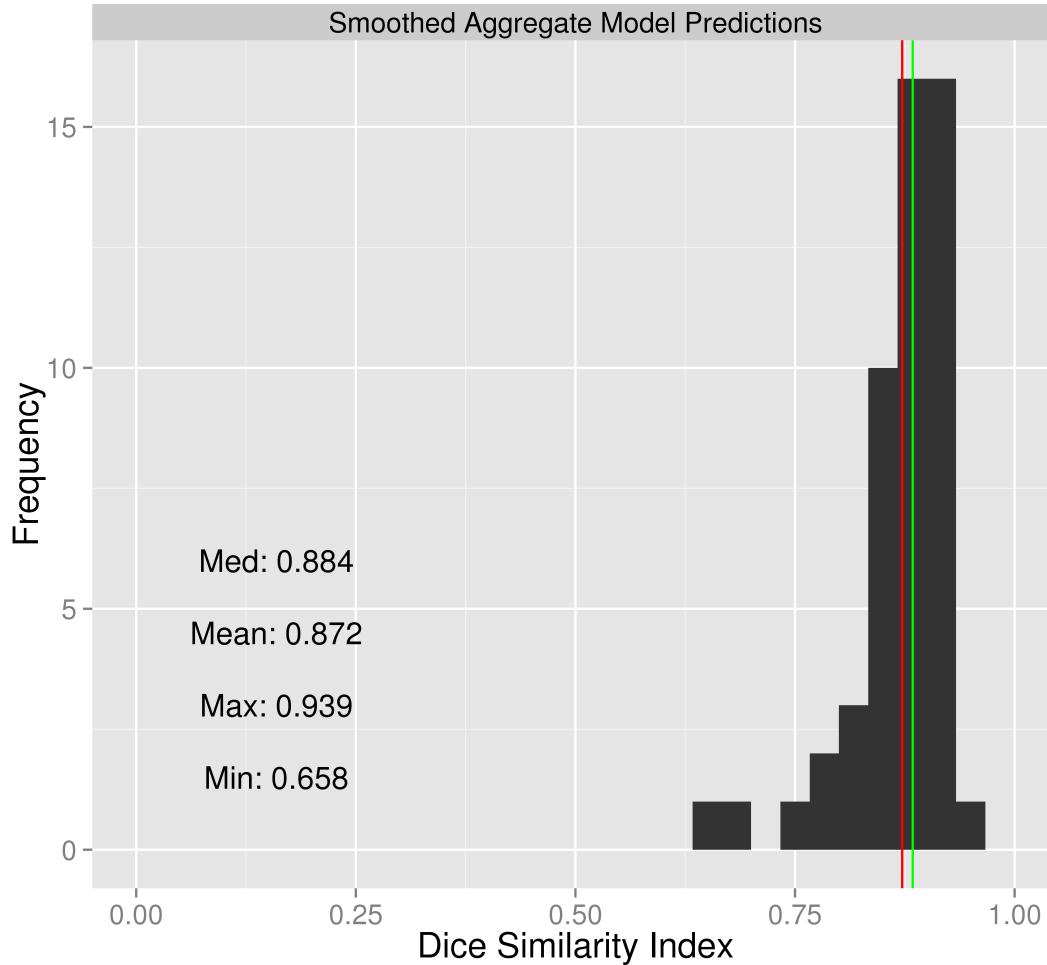
Let  $y_{i,j}$  be the presence / absence of ICH for voxel  $j$  from person  $i$ .

$$\text{logit}(y_{i,j}) = \beta_0 + \sum_{k=1}^p x_{i,j,k} \beta_k$$

- Case-control sample voxels for a fixed percentage (25%) of outcome



# Dice Similarity Index Distribution in Validation Scans



# Prediction Comparison: DSI: 0.90

