Association between Hydroxyurea Adherence and Persistence and Vaso-Occlusive Crises Among Texas Medicaid Recipients with Sickle Cell Disease

**Background**
- Studies using Medicaid claims data showed that 15%-36% had MPR≥80%
- Economic impact

**Mortality**
- Hydroxyurea claims numbers and examples include acute chest syndrome, respiratory infections, prophylactic
- Vaso-occlusive crises (VOCs) are the most common mortality

**Factors Impacting HU Adherence**
- Patient-related factors
- Tumor-related factors

**Results**
- Compared to those with very high adherence (>90%), those with lower adherence were more likely to have VOCs.
- Compared to those who were persistent, those who were non-persistent were expected to have 11.8% fewer VOC events.
- Higher MPR was associated with fewer VOCs.

**Conclusions**
- Non-adherence and non-persistence were significantly associated with increased risk of VOCs.
- Increasing adherence and persistence to HU may be one strategy for decreasing the risk of VOCs.

**Acknowledgments**
- Funding from the National Institutes of Health (K01 HD089280 and R03 HD085623).

**References**
- 16. Fisak, B. et al., The relation between health-related quality of life, treatment adherence and disease severity in sickle cell disease. Soc Hematology.