

WILSON'S DISEASE: COST OF HOSPITALIZATION IN GERMANY

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Introduction:

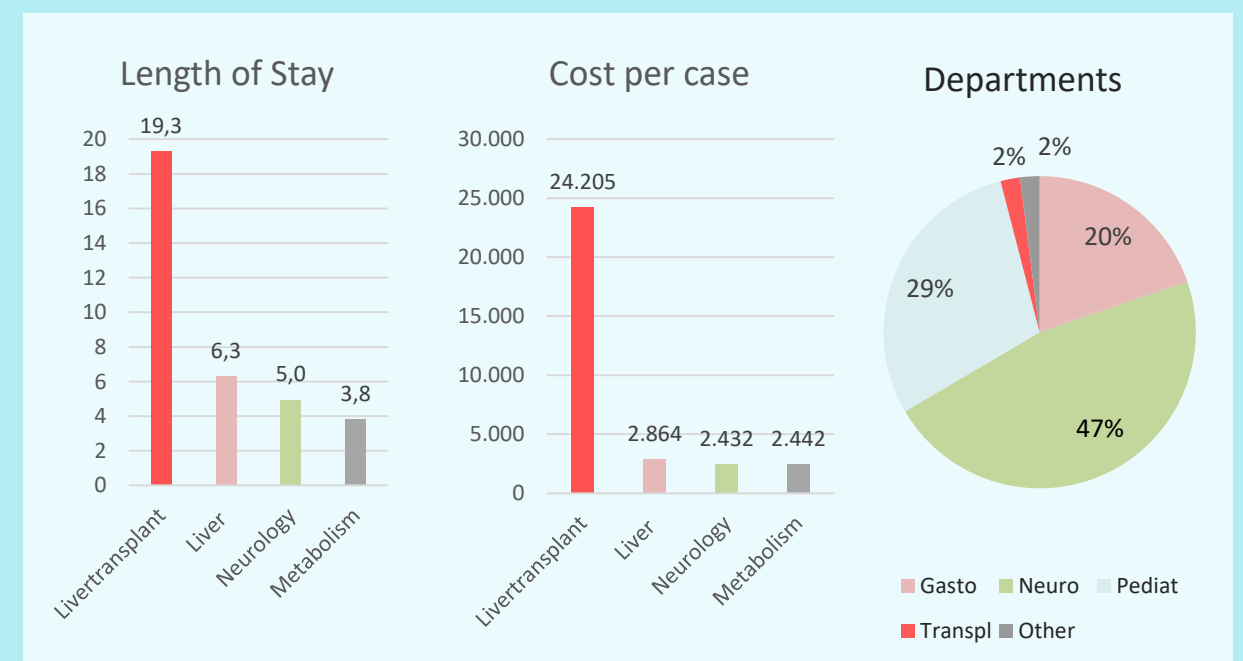
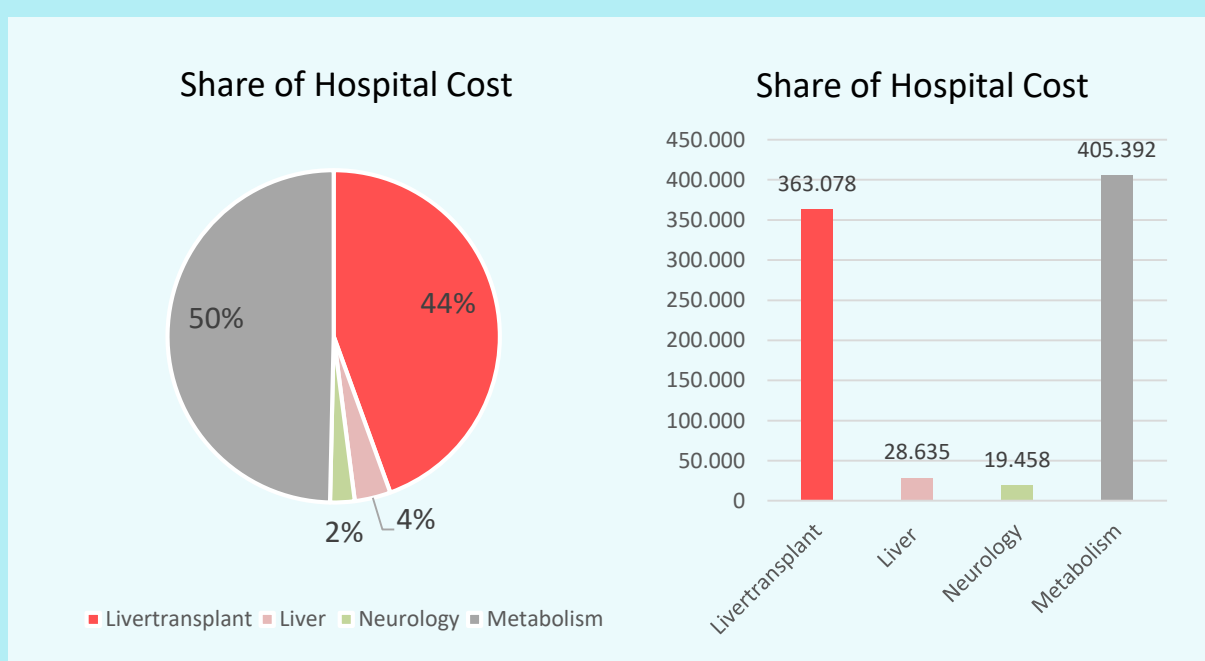
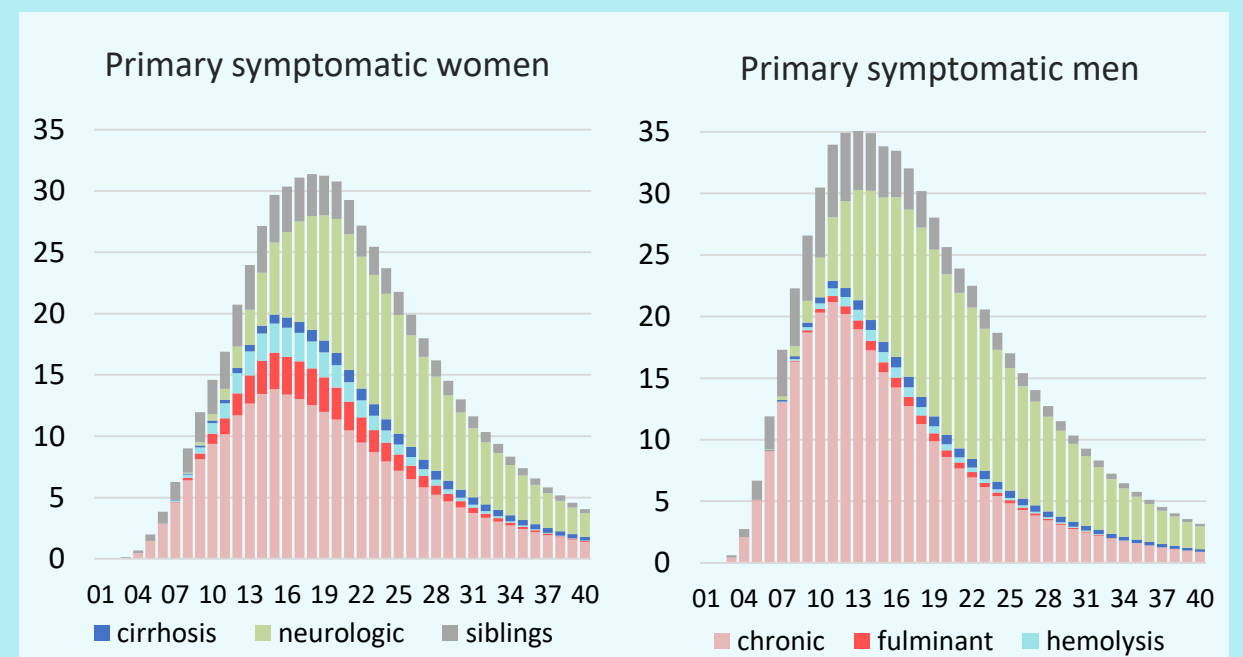
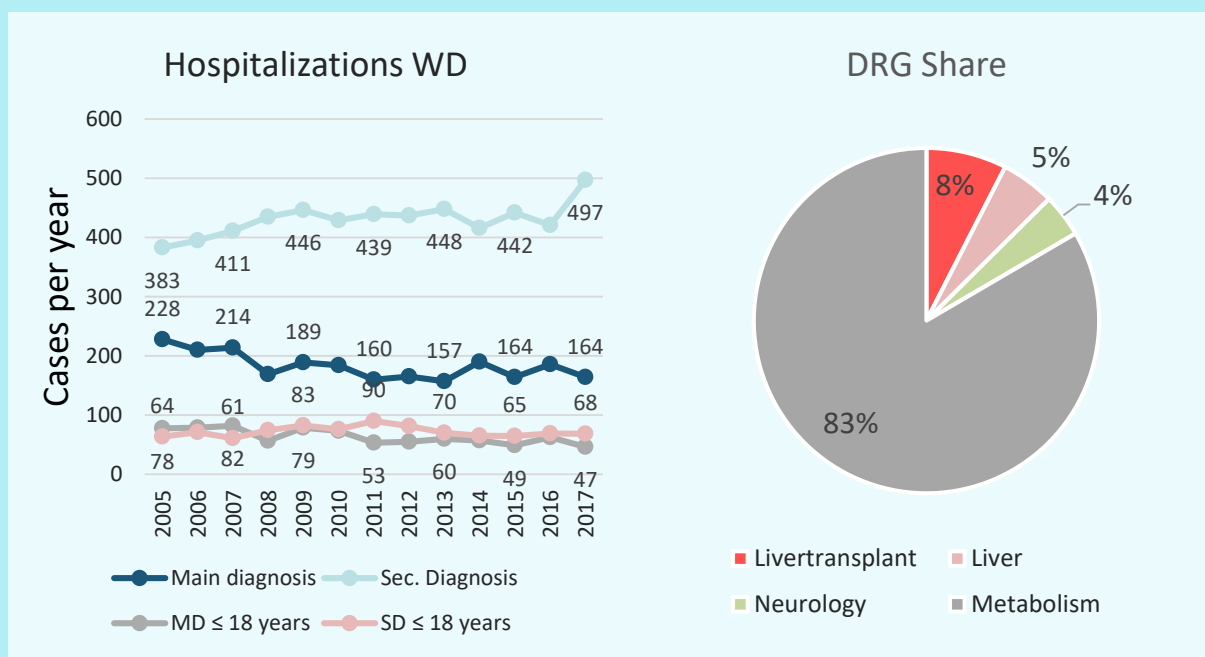
- Wilson's disease (WD) is an autosomal recessive inherited condition in which copper excretion via bile is diminished due to gene mutation.
- Consequence is an accumulation of copper in the body leading to a variety of symptoms.
- German registry data showed that 49% WD patients suffer from liver damage, 26% from neurological deficits, 13% from both.
- Liver disease is in rare cases short term fatal and may be rescued by liver transplantation.
- Incidence is estimated around 1: 30,000. Very little is known about the costs of WD, despite it demands life time treatment and is in many cases disabling.
- Here we examine the hospitalization cost of WD in Germany to approach a complete cost of disease picture.

Methods:

- Inpatient care data from Federal Statistical Office 2005-2018 and quality reports for 2016 of all German hospitals were evaluated for WD encodings.
- Calculation based on DRG charges from 2016.
- Analysis with IBM SPSS-25. Diagrams with Microsoft Excel® version 2016

Results:

- In 2017 there were 186 patients hospitalized with WD. In 153 cases the resulting DRG could be identified.
- Additionally in 46 cases with side diagnosis WD the DRG was reported.
- 7.5% were liver transplant DRGs, in 5.0% a neurologic and in 4.0% hepatologic DRGs, the remainder of 83.5% metabolism DRGs.
- The average length of stay was 19.3 days (d) with liver transplants, 6.3d with neurologic, 4.9d with hepatologic and 3.8d with metabolism DRGs.
- 28% of cases were treated in university hospitals, 42% in other major hospitals and 30% in rural and smaller hospitals
- Average age of patients is 30.1 years (median 28.0), no relevant difference in gender (m 29.9; f 30.3).
- The average cost of the stays for liver transplant were 24,205 Euro, a part of the stays were only preparatory stays without an actual transplant, resulting in 44.5% of the annual total cost of 1,336,901.
- The other groups had average costs between 2,432 and 2863 Euro, summing up to 55.5% of total costs.



Conclusions:

- Total hospital cost for WD in Germany was 1.3 million Euro in 2017, with 186 cases with primary diagnosis WD.
- Cost driver are the liver transplantations and their preparation which make close to half of the costs.
- The hospitalization costs for primarily neurologic or hepatologic reasons were pretty similar.
- The examination of the ambulatory sector should follow to obtain the complete economic burden.