



Bern University
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Lying behaviour of group-housed horses

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Sleep and Recumbency

Sleep is a basic need!



Recumbency time of horses

- ▶ Natural conditions: 96 min (Duncan 1980)
- ▶ Group-housed: 63-102 min (Pollmann 2002, Eckhoff 2000)
- ▶ Single-housed: 118-154 min (Ruckebusch 1972, Oechsle 2001)



REM sleep deficiency vs. narcolepsy

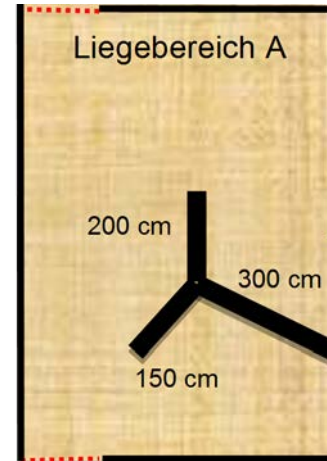
- ▶ **REM sleep deficiency**
 - ▶ Recumbency periods which are regularly too short

- ▶ **Narcolepsy** = Sleeping disease
 - ▶ Falling asleep while being active



Materials & Methods

- ▶ Two groups of six mares
- ▶ 72 h per treatment
- ▶ Treatments: Control (unstructured)
With Structure



Camera 4: 07.01.2015 00:14:11
07/01/2015 00:19:38
4A HNS



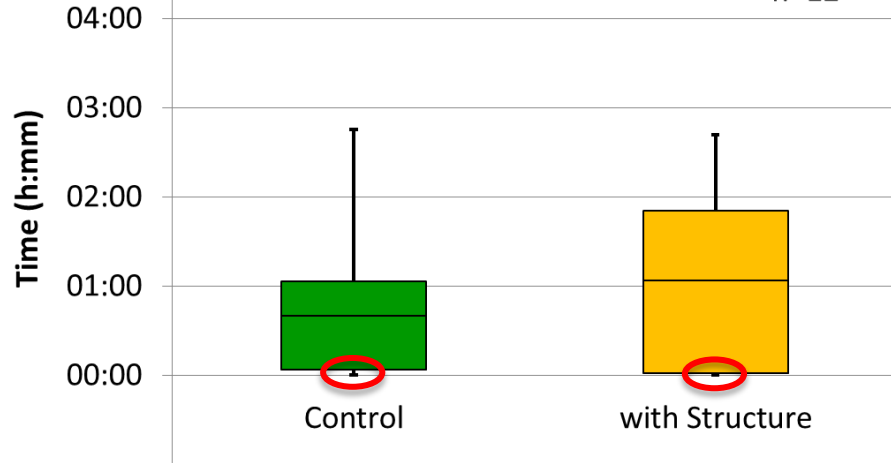
Duration of sternal and lateral recumbency

- ▶ 24 min longer with structure

- ▶ No influence of the structure

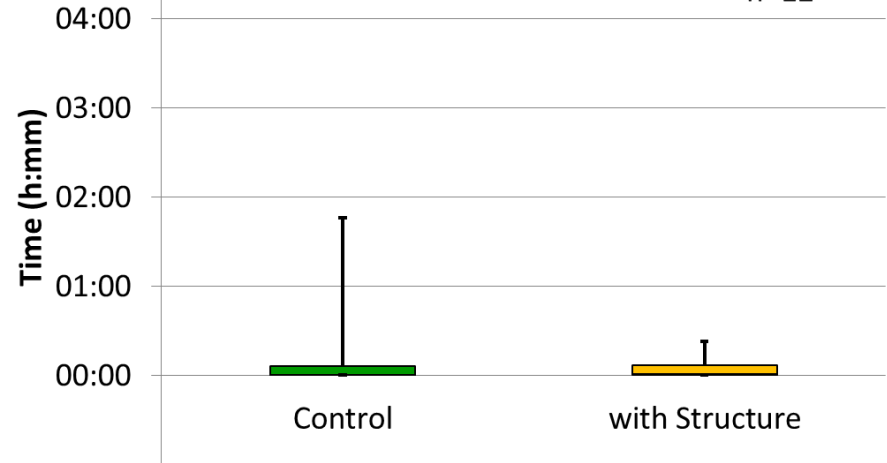
Sternal recumbency

n=12

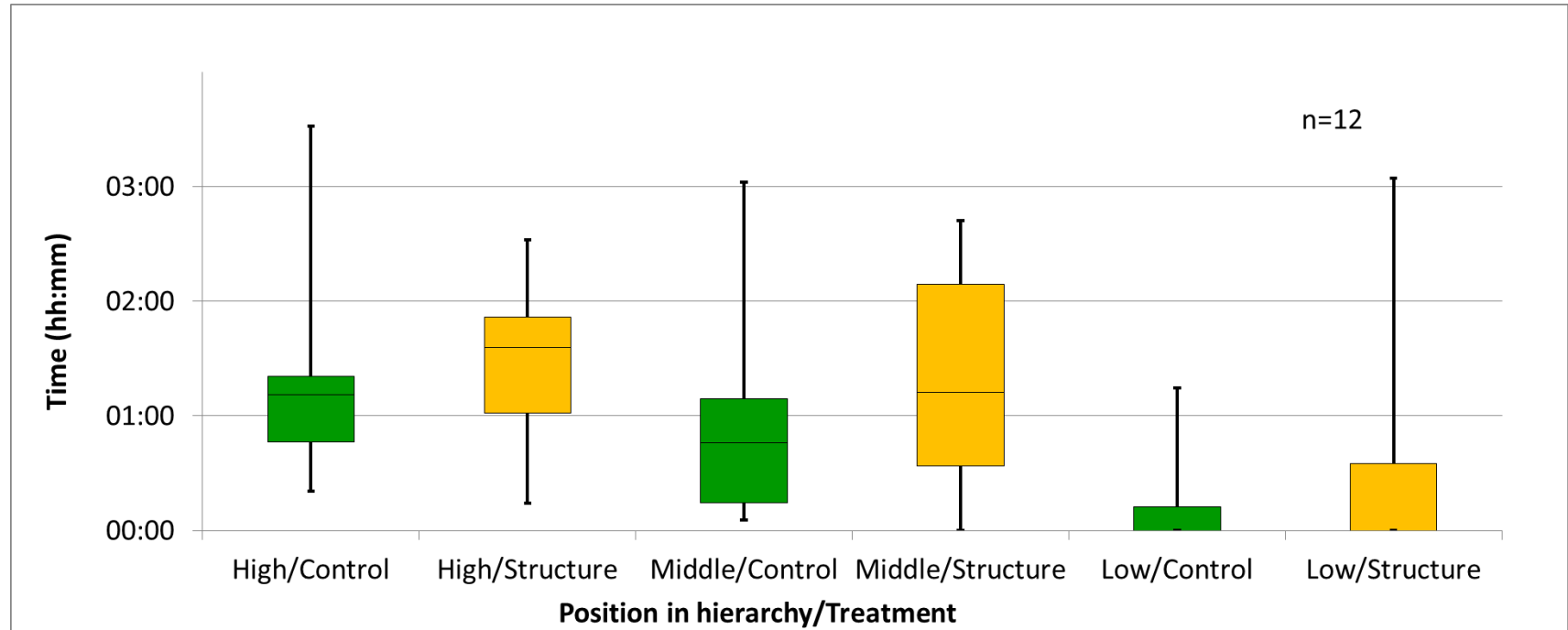


Lateral recumbency

n=12



Recumbency time and hierarchical level



07/01/2015
3A HNS

10:20:50



Conclusions

- ▶ Positive tendency for high & middle-ranked horses
 - ▶ No effect on low-ranked horses
 - ▶ Strong influence of the hierarchical level
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- ➔ **Structural elements may improve the lying area**
 - ➔ **Group-housing systems require know-how**



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10/01/2015 09:13:25
3A HNS



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28/01/2015 04:24:30
4A HNS



Camera 4: 29.01.2015 05:30:55
29/01/2015 05:37:50
4A HNS



Camera 3: 28.01.2015 05:00:00
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3B HNS

