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**Title:** Rhythm control decreased severity of sleep-disordered breathing in patients with atrial fibrillation following cardioversion

Henrik 28547 Fox hfox@hdz-nrw.de MD <sup>1</sup>, Thomas 28568 Bitter bitter.thomas@gmail.com MD <sup>1</sup>, Dieter 28569 Horstkotte akleemeyer@hdz-nrw.de MD <sup>1</sup> and Olaf 28570 Oldenburg ooldenburg@hdz-nrw.de MD <sup>1</sup>.

<sup>1</sup> Department of Cardiology, Heart and Diabetes Center North Rhine-Westphalia, Ruhr University Bochum, Bad Oeynhausen, Germany .

**Body:** To date Sleep-disordered breathing (SDB) is recognized as an independent risk factor for the development of atrial fibrillation (Afib) and re-occurrence of Afib after cardioversion and/or ablative therapies. Thus, little is known about the influence of successful restoring of sinus rhythm on SDB's severity. A total of 45 patients (30 males, 15 females, mean age 67 years) with Afib (n = 40) or atrial flutter (Aflu) (n = 5) were investigated for the presence and severity of SDB by multichannel cardiorespiratory polygraphy (PG) before and after successful synchronized electrical cardioversion into stable sinus rhythm. Apnoea-hypopnoea-index (AHI) as well as apnoea index (AI) dropped significantly immediately after successful cardioversion into stable sinus rhythm.

n=45	AHI before cardioversion	AHI after cardioversion	AI before cardioversion	AI after cardioversion
Mean	22.21	15.79	8.42	6.04
Standard deviation	10.67	9.77	7.01	7.97
Decrease in %	-	28.89	-	28.22
P value	-	< 0.05	-	< 0.05

While SDB has been shown to be an independent risk factor for rhythm control therapy, this study reveals an effect of successful rhythm control (restoring of sinus rhythm from Afib/Aflu) on SDB. Further studies are needed to prove context and impact of rhythm control in patients with atrial fibrillation and atrial flutter regarding their characteristics of sleep-disordered breathings for their respective status of rhythm.