



# Impulse control disorder/behaviour related to prolonged release oral and transdermal dopamine agonists: a comparative survey across European centres

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## OBJECTIVE:

Assessment of tolerability, ICD and other side effects of prolonged release DA's (ropinirole XL (ROP XL), pramipexole PR (PPX PR) and transdermal rotigotine patch (RTG)) across Europe including neurologist and care of the elderly centres.

## BACKGROUND:

- Impulse control disorders (ICD)/behaviours in PD are a key clinical challenge with societal and personal impact.
- ICDs are thought to be related to the use of immediate release dopamine agonists (DA's) in Parkinson's disease (PD).
- Little is known about whether longer acting DA's confer a lower rate of ICD given the risk appears higher with pulsatile pattern of drug delivery.

## METHODS:

- Retrospective and prospective audit data from ongoing post marketing surveillance for cases initiated on DA using audit based questionnaire (as per study reported by Appiah-Kubi et al.<sup>1</sup>)

## REFERENCE:

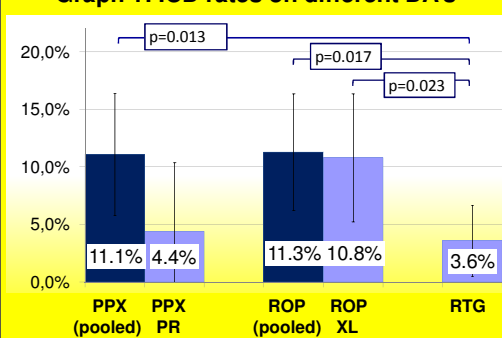
<sup>1</sup> Appiah-Kubi L et al., J Applied Research 2003; 3: 356-362

## RESULTS 1:

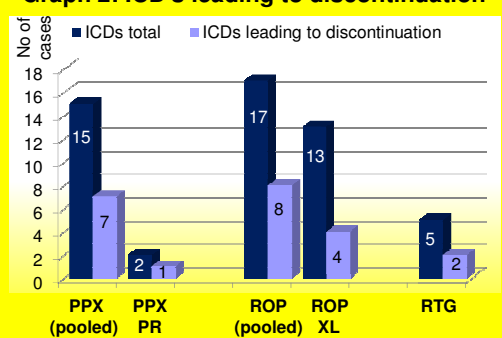
- 315 cases were recruited and audited. Demographics: Table 1
- 32 cases (10.2%) reported impulse control disorders (ICD), of which 30 were exposed to oral DA.

Table 1: DEMOGRAPHICS	All cases: No/ Mean (Distr./ Range)	All cases: % Distr./ Median (Range)	With ICDs: No/ Mean (Distr./ Range)
Patients (Male: Female)	315 (187M: 128F)	59.4%M: 40.6%F	32 (26M: 6F)
Age (yrs)	67.7	68.0 (37– 89)	64.2 (42– 85)
Age of PD onset (yrs)	59.6	61.0 (28– 84)	57.1 (35– 84)
Age of PD onset <50	57	77.2%M: 22.8%F	11 (10M: 1F)
Patients (Male: Female)	(44M: 13F)		
Duration of Disease (yrs)	7.9	(0– 26)	6.8 (0–18)
Hoehn & Yahr Stage	2.8	3.0 (1.0– 5.0)	2.7

**Graph 1: ICD rates on different DA's**



**Graph 2: ICD's leading to discontinuation**



**Graph 3: Type of ICDs on different DA's**

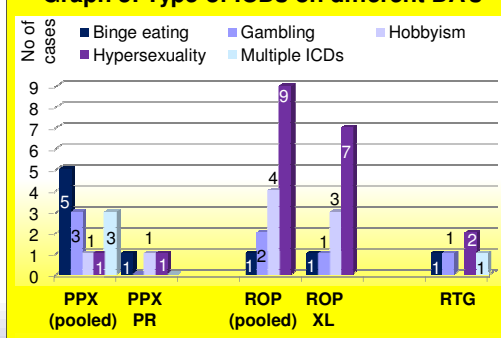


Table 2: ICDs	Pooled PPX n=135	PPX PR n=45	Pooled ROP n=150	ROP XL n=120	RTG (n=140)
Incidence No (%)	15 (11.1%)	2 (4.4%)	17 (11.3%)	13 (10.8%)	5 (3.6%)
Mean dose (with ICD's)	2.5 mg (3.4 mg)	2.5 mg (4.5 mg)	13.2 mg (12.5 mg)	13.3 mg (11.8 mg)	8.6 mg (10.4 mg)
ICD leading to discontinuation	7 (5.2%)	1 (2.2%)	8 (1.6%)	4 (3.3%)	2 (1.4%)

## RESULTS 2:

- Rate of ICD with RTG was significantly lower than ROP XL ( $p = 0.023$ , exact proportion test) as well as pooled ROP data (long acting + short acting,  $p = 0.013$  and pooled PPX ( $p = 0.017$ ) (graph 1). For analysis of PPX PR data, numbers are yet too low.
- Discontinuation due to ICD was reported in 53.1% of all ICD cases: 1.4% (2/140) on RTG, 3.3% (4/120) on ROP XL and 2.2% (1/45) on PPX PR (graph 2, table 2).
- 4 cases with ICD on PPX /ROP reported attenuation of ICD when started on RTG patch.
- The type of ICD varies between the different DA's, with hypersexuality being most common with ROP (graph 3).

## ACKNOWLEDGMENTS:

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**CONCLUSION: This large scale international ongoing survey suggests differential ICD rates between contemporary prolonged release DA's with the rate being least with rotigotine patch at a mean dose of 8.6mg/ 24h**