

# Treatment Continuity, Adverse Events and Psychiatric Hospitalization for Incident Users of Second-Generation Antipsychotics Long-Acting Injections in Schizophrenia: One-Year Follow-up Study

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## Objectives

- Schizophrenia commonly occurs in young adults. Despite the proven benefits of second-generation antipsychotic (SGA) long-acting injections (LAI) for schizophrenia, their utilization in Taiwan is deemed low by professionals.
- This study aims to assess SGA LAI continuity, adverse events, and psychiatric hospitalization in schizophrenia, with a specific focus on young adults.

## Methods

- The study included newly diagnosed cases of schizophrenia and incident users of three second-generation antipsychotic long-acting injections (SGA LAI) – risperidone (RISP), paliperidone (PALP), and aripiprazole (ARIP) – from 2018 to 2019, with a one-year follow-up.
- Utilization patterns for each SGA LAI were classified as continuous use, switch, withdrawal, or intermittent use.
- Multinomial logistic regression was conducted to explore influential factors associated with utilization patterns.

## Conclusion

Approximately two-thirds of LAI users discontinued their treatment, resulting from a negative impact on psychiatric hospitalization. The risk of withdrawal in SGA LAI use increased for individuals in non-public hospitals and with higher age.

## Results

Figure 1. Utilization patterns

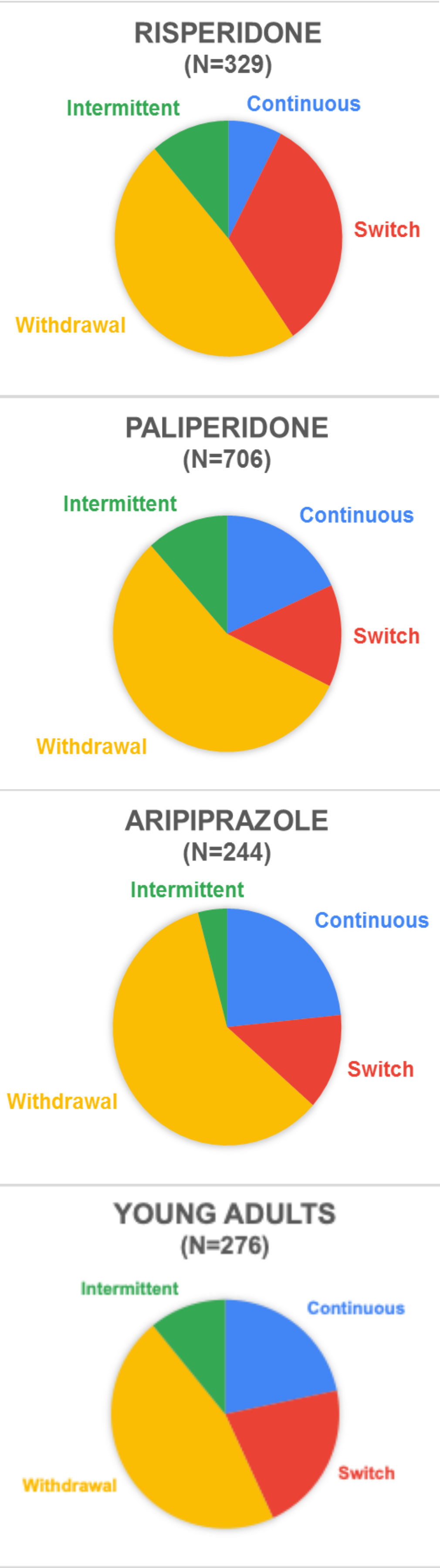


Figure 2. Incidence of adverse events (per 100 person-years)

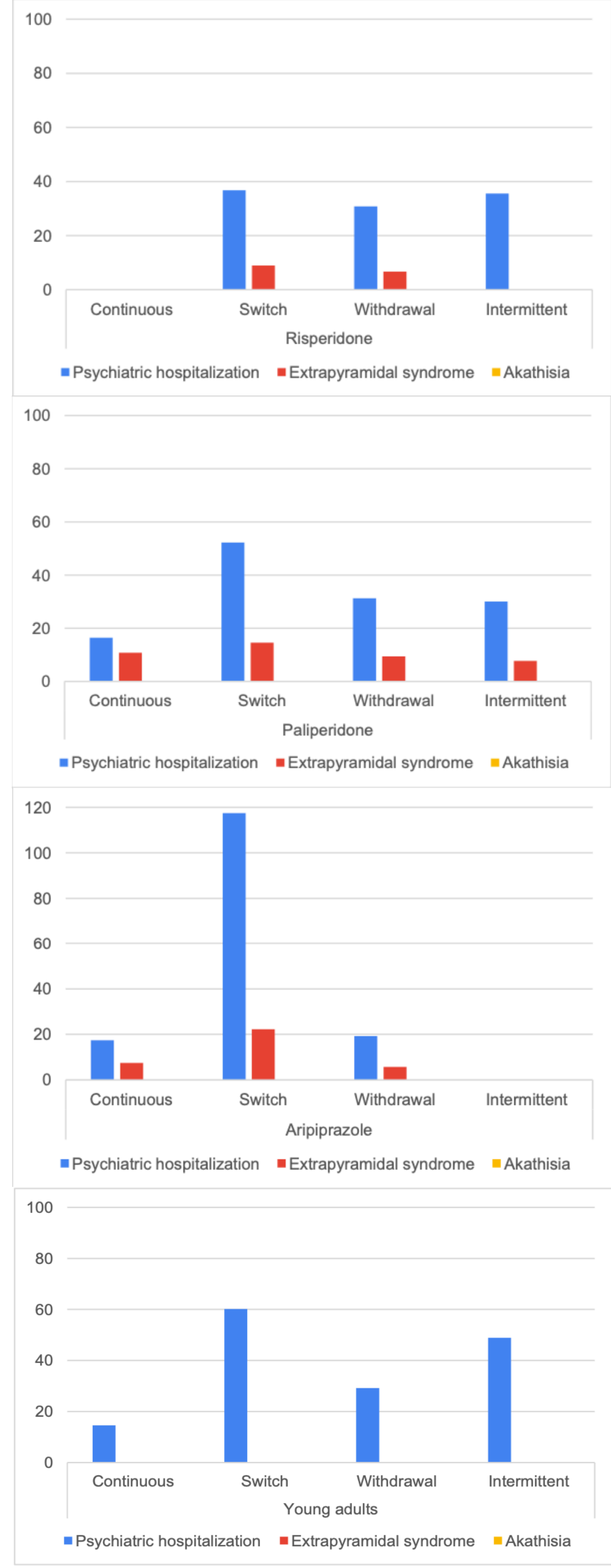


Table 1. Multinomial logistic regression analysis of utilization patterns

	Risperidone		
	Switch vs. Continuous Odd ratio (95% CI)	Withdrawal vs. Continuous Odd ratio (95% CI)	Intermittent vs. Continuous Odd ratio (95% CI)
Age	0.977 (0.947-1.009)	1.003 (0.972-1.035)	1.024 (0.987-1.063)
Sex	1.289 (0.513-3.234)	0.872 (0.356-2.136)	0.547 (0.186-1.606)
Region			
Central vs. North	1.029 (0.319-3.322)	0.922 (0.296-2.876)	0.497 (0.116-2.125)
East/Island vs. North	0.412 (0.060-2.837)	0.422 (0.067-2.644)	<0.001 (<0.001~)
South vs. North	1.331 (0.445-3.984)	0.898 (0.305-2.640)	1.011 (0.292-3.499)
Hospital ownership			
non-public vs. public	2.032 (0.729-5.661)	3.513 (1.297-9.512)	2.286 (0.713-7.33)

	Paliperidone		
	Switch vs. Continuous Odd ratio (95% CI)	Withdrawal vs. Continuous Odd ratio (95% CI)	Intermittent vs. Continuous Odd ratio (95% CI)
Age	1 (0.980-1.020)	1.012 (0.997-1.027)	0.994 (0.973-1.015)
Sex	1.178 (0.688-2.017)	0.906 (0.603-1.362)	0.672 (0.380-1.191)
Region			
Central vs. North	0.663 (0.324-1.356)	0.886 (0.535-1.468)	1.497 (0.750-2.986)
East/Island vs. North	1.560 (0.443-5.497)	0.995 (0.346-2.860)	1.457 (0.360-5.889)
South vs. North	1.258 (0.666-2.378)	0.877 (0.531-1.449)	1.013 (0.492-2.087)
Hospital ownership			
non-public vs. public	0.796 (0.456-1.389)	1.217 (0.790-1.874)	0.864 (0.477-1.565)

	Aripiprazole		
	Switch vs. Continuous Odd ratio (95% CI)	Withdrawal vs. Continuous Odd ratio (95% CI)	Intermittent vs. Continuous Odd ratio (95% CI)
Age	1.005 (0.971-1.040)	1.025 (1.000-1.050)	1.046 (0.998-1.096)
Sex	1.547 (0.618-3.874)	0.851 (0.452-1.603)	1.671 (0.370-7.545)
Region			
Central vs. North	1.240 (0.394-3.899)	0.779 (0.366-1.661)	0.294 (0.029-2.951)
East/Island vs. North	2.598 (0.436-15.468)	1.730 (0.448-6.684)	1.766 (0.145-21.456)
South vs. North	2.140 (0.681-6.727)	0.759 (0.318-1.809)	0.803 (0.133-4.836)
Hospital ownership			
non-public vs. public	0.615 (0.225-1.684)	0.878 (0.419-1.841)	0.492 (0.114-2.111)

	Young Adults		
	Switch vs. Continuous Odd ratio (95% CI)	Withdrawal vs. Continuous Odd ratio (95% CI)	Intermittent vs. Continuous Odd ratio (95% CI)
Age	1.065 (0.946-1.200)	1.121 (1.012-1.243)	1.050 (0.903-1.221)
Sex	1.443 (0.690-3.016)	1.533 (0.811-2.899)	0.601 (0.227-1.592)
Region			
Central vs. North	1.295 (0.522-3.209)	1.327 (0.606-2.910)	2.151 (0.708-6.529)
East/Island vs. North	1.992 (0.303-13.106)	2.639 (0.509-13.671)	1.682 (0.135-21.022)
South vs. North	1.176 (0.463-2.986)	1.378 (0.622-6.055)	2.076 (0.685-6.294)
Hospital ownership			
non-public vs. public	0.700 (0.329-1.489)	1.257 (0.645-2.451)	0.487 (0.195-1.216)