



An evidence-based two-tier urological treatment and liver-injury surveillance program to young ketamine abusers with urinary tract dysfunction
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Youth Urological Treatment Centre, Department of Surgery,
The Chinese University of Hong Kong



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Project Content

- Established Youth Urological Treatment Centre(YUTC) at the Prince of Wales Hospital
 - Provide early urological assessment and treatment to young patients suffering from ketamine-associated urinary tract dysfunction
 - Identify those ketamine abusers who have high-risk to develop liver injury and to provide formal hepatological assessment
 - Encourage young abusers to quit drugs

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Project Content

- DTRC health talks
 - Provide preventive education to DTRC rehabilitees through health talks on harmful effects of ketamine abuse on urinary tract
 - Identify those DTRC rehabilitees who would benefit from formal urological assessment and treatment by delivering health talks and screening for ketamine-associated urinary tract dysfunction

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Project Content – Major activities

- Youth Urological Treatment Centre(YUTC)
 - Regular clinical sessions and ad hoc clinical sessions for advanced second-tier urological treatment
 - Partnership with anti-drugs social work services and fast-track appointment booking by hotline
 - Ketamine-associated liver injury surveillance program
- DTRC health talk
 - Deliver preventive health education talks to DTRC rehabilitees
 - Identify rehabilitees with significant urinary tract dysfunction symptoms and referral to YUTC for formal urological treatment

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Project Content – Major activities



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Output and Outcome Evaluation

	Description of Indicator (with targets)	Output Achieved	Evaluation Methods
Revised Output indicator 1	224 patients either receiving first line integrated anti-inflammatory therapy or second-tier advanced therapy (240 patients)	93%	Data retrieved from participant's enrolment / registration record
Output indicator 3	220 patients participating in the ketamine-associated liver injury surveillance program (240 patients)	92%	Data retrieved from participant's enrolment / registration record
Output indicator 4	356 of DTRC residents participating in health-talk and screening program for ketamine-associated urinary tract dysfunction (360 patients)	99%	Data retrieved from participant's enrolment / registration record
Output indicator 5	89% (8/9) of patients identified to be "high risk" cases for ketamine-associated liver injury received advanced hepatological assessment by hepatologists (80%)	89%	Data retrieved from participant's enrolment / registration record
Output indicator 6	100% (28/28) DTRC residents identified with significant urinary tract dysfunction symptoms received formal urological treatment at YUTC (80%)	100%	Data retrieved from participant's enrolment / registration record

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Output and Outcome Evaluation

	Description of Indicator (with targets)	Outcome Achieved	Evaluation Methods
Outcome indicator 1	Improvement in urinary tract dysfunction symptoms or voiding function among patients who received first-line integrated anti-inflammatory therapy (70% showed improvement in urinary tract dysfunction symptoms or voiding function or significant improvement as indicated by paired t-test)	80% (98/123) of the participants improved after the first-line treatment.	Clinical data or Pelvic Pain and Urinary Urgency/Frequency (PUF) Symptom Scale or uroflowmetry parameters (Pre-test and Post-test assessment)
Outcome indicator 2	Improvement in urinary tract dysfunction symptoms or voiding function among patients who received second-tier advanced therapy (50% showed improvement in urinary tract dysfunction symptoms or voiding function or significant improvement as indicated by paired t-test)	76% (16/21) of the participants improved after the second-tier treatment.	Clinical data or Pelvic Pain and Urinary Urgency/Frequency (PUF) Symptom Scale or uroflowmetry parameters (Pre-test and Post-test assessment)

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Experience Gained

- The service model of YUTC is effective in playing a key role in filling the service gap in the integrated treatment and rehabilitation programme for psychotropic substance abusers complicated with urinary tract problems by providing priority medical care.
- The medical treatment and counselling help the ketamine abusers to gain insights into the harmful effects of substance abuse on their physical well-being, and that encourage the patients to cease or reduce the drug use.
- Reinforcement education to DTRC rehabilitees through health talks can strengthen their resolve to stay away from drugs and reduce relapse.

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Other Findings

- Latest finding suggests that methamphetamine has replaced ketamine to be the most popular substance being abused. Both ketamine and methamphetamine abuse can cause urinary tract problems.
- The mechanism and voiding symptoms of methamphetamine-associated urinary tract dysfunction differentiate to those of ketamine-associated urinary tract dysfunction.

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Conclusion

- Continuous efforts are warranted from all stakeholders including the government, the social work services and the urological care providers to better tackle the challenging issue of ketamine-associated urinary tract dysfunction.
- YUTC experience strongly suggests that treatment for ketamine-associated urinary tract dysfunction should be part of the integrated treatment and rehabilitation care for ketamine abusers.

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