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# **PSYCKES Dose Indicators**

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July 2011

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Technical Specifications

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## The PSYCKES Dose Indicators Technical Specifications

The PSYCKES dose indicators are based on the Federal Drug Administration (FDA)'s maximum dose, as indicated by the Physician's Desk Reference (PDR). The decision rules were created by two psychiatrists: the PSYCKES Medical Director (Dr. Matt Perkins) and the Director of the PSYCKES Project (Dr. Molly Finnerty). It is expected that the dose maximum values will be reviewed each quarter for potential changes.

The maximum doses used to calculate the dose indicators can be found in the Psychotropic Medication Reference table available on the PSYCKES website ([www.psyckes.org](http://www.psyckes.org)).

The decision rules regarding which dose to set as the maximum for adults are as follows:

### To identify the maximum dose via the PDR

- 1 If the PDR states a maximum dose for outpatient clients, this dose is used as the maximum (PDR MAX OUTPATIENT)
- 2 If the PDR states a maximum dose, this dose is used as the maximum (PDR MAX)
- 3 If the PDR provides a recommended dose range, the upper bound is used as the maximum (PDR RANGE)
- 4 If the PDR provides only a recommended dose, that dose is used as the maximum (PDR REC)

Notes: If there are different doses for different indications, the highest dose associated with a psychiatric indication is used to set the maximum dose. If there is no psychiatric indication, then the maximum set by the PDR is used. If the dose is weight-based, a standard 70kg weight is used to set the max.

In addition, the updated Schizophrenia PORT dose recommendations<sup>1,2</sup> were used to identify another series of maximum doses for antipsychotics, as in some cases the PORT recommended doses may differ from the FDA/PDR maximums.

### To identify the maximum dose via the PORT Recommendations

- 1 If PORT states a maximum dose for outpatient clients, this dose is used as the maximum (PORT)
- 2 If PORT states a maximum Acute dose, this dose is used as the maximum (PORT)

<sup>1</sup> Buchanan RW, Kreyenbuhl J, Kelly DL, Noel JM, Boggs DL, Fischer BA, Himelhoch S, Fang B, Peterson E, Aquino PR, Keller W; Schizophrenia Patient Outcomes Research Team (PORT). The 2009 schizophrenia PORT psychopharmacological treatment recommendations and summary statements. Schizophr Bull. 2010 Jan;36(1):71-93. Epub 2009 Dec 2.

<sup>2</sup> Kreyenbuhl J, Buchanan RW, Dickerson, FB, Dixon, LB. The Schizophrenia Patient Outcomes Research Team (PORT): Updated Treatment Recommendations 2009. Schizophr Bull. 2010 Jan;36(1):94-103. Epub 2009 Dec 2.

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- 3 If PORT provides a recommended dose range, the upper bound is used as the maximum (PORT RANGE)
- 4 If PORT is not explicit regarding dose, the PDR value is used, following the recommendation in Kreyenbuhl, Buchanan, Dickerson, & Dixon, 2010.

The decision rules to set the maximum dose for the youth population are listed below.

### To identify the maximum Youth dose

- 1 When there is an FDA approval for use in a pediatric population, use the associated/extrapolated dose for children under 13 years and those 13 to 18 as the PDR suggests. When there are multiple indications in youth, use the maximum dose for the psychiatric indication (PDR)
- 2 If there is no FDA indication for the pediatric population, use the guidelines proposed by the Texas report regarding the care of Foster Children (TEXAS)
- 3 In the absence of both the FDA indication and guidance from the Texas report, then the dosing parameters set forth in Appendix 1 of Pediatric Psychopharmacology: Principles and Practice (2003) Editors Andres Martin, Lawrence Scahill, Dennis S. Charney, and James F. Leckman Oxford University Press (TEXT; Revised edition expected in 2010 will be used to update the recommendations)
- 4 In the case that none of the above sources set forth any guidance, then the adult PDR Maximum will be used (see Adult Dose Specifications for Rules: Identified by PDR MAX)

Notes: In the case of a weight-based dose, dosages for the under 13 group will be based on 40 kg, and the dosages for ages 13-17 will be based on 70 kg.

## Higher than Recommended Dose, Antipsychotics

**Description:** The proportion of Medicaid enrollees on any antipsychotic who are prescribed a dose exceeding the recommended maximum (>1 times the recommended maximum). Three levels are provided:

- >1 times higher than the recommended maximum;
- >1.5 times higher than the recommended maximum; and
- >2.0 times higher than the recommended maximum.

### Eligible Population:

**Age:** Adults age  $\geq 18$  , Adolescents age 13-17, Child age  $< 13$ .

**Inclusion Criteria:** Medicaid enrollee who is prescribed any active antipsychotic within 35 days of the report date.

**Exclusion Criteria:** None.

### Specification:

**Numerator:** Enrollees (from the denominator) currently on a dose exceeding the recommended maximum based on the PORT by a factor of >1.0: > 1.5; >2.0 times, as of 35 days of the report date.

Denominator:

Eligible Population

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## Higher than Recommended Dose, Antidepressants

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**Description:** The proportion of Medicaid enrollees on any antidepressant who are prescribed a dose exceeding the recommended maximum (>1 times the recommended maximum). Three levels are provided:

- >1 times higher than the recommended maximum;
- >1.5 times higher than the recommended maximum; and
- >2.0 times higher than the recommended maximum.

### Eligible Population:

**Age:** Adults age  $\geq 18$  , Adolescents age 13-17, Child age  $< 13$ .

**Inclusion Criteria:** Medicaid enrollee who is prescribed any active antidepressant within 35 days of the report date.

**Exclusion Criteria:** None.

### Specification:

**Numerator:** Enrollees (from the denominator) currently on a dose exceeding the recommended maximum based on the PDR by a factor of >1.0: > 1.5; >2.0 times, as of 35 days of the report date .

Denominator: Eligible Population

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## Higher than Recommended Dose, Anxiolytic/Hypnotics

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**Description:** The proportion of Medicaid enrollees on any anxiolytic/hypnotic who are prescribed a dose exceeding the recommended maximum (>1 times the recommended maximum). Three levels are provided:

- >1 times higher than the recommended maximum;
- >1.5 times higher than the recommended maximum; and
- >2.0 times higher than the recommended maximum.

### Eligible Population:

**Age:** Adults age  $\geq 18$  , Adolescents age 13-17, Child age  $< 13$ .

**Inclusion Criteria:** Medicaid enrollee who is prescribed any active anxiolytic/hypnotic within 35 days of the report date.

**Exclusion Criteria:** None.

### Specification:

**Numerator:** Enrollees (from the denominator) currently on a dose exceeding the recommended maximum based on the PDR by a factor  $> 1.0$ :  $> 1.5$ ;  $> 2.0$  times, as of 35 days of the report date.

Denominator: Eligible Population

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## Higher than Recommended Dose, Mood Stabilizer

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**Description:** The proportion of Medicaid enrollees on any mood stabilizer who are prescribed a dose exceeding the recommended maximum (>1 times the recommended maximum). Three levels are provided:

- >1 times higher than the recommended maximum;
- >1.5 times higher than the recommended maximum; and
- >2.0 times higher than the recommended maximum.

### Eligible Population:

**Age:** Adults age  $\geq 18$  , Adolescents age 13-17, Child age  $< 13$ .

**Inclusion Criteria:** Medicaid enrollee who is prescribed any active mood stabilizer within 35 days of the report date.

**Exclusion Criteria:** None.

### Specification:

**Numerator:** Enrollees (from the denominator) currently on a dose exceeding the recommended maximum based on the PDR by a factor  $> 1.0$ :  $> 1.5$ ;  $> 2.0$  times, as of 35 days of the report date.

Denominator: Eligible Population

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## Higher than Recommended Dose, ADHD Medications

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**Description:** The proportion of Medicaid enrollees on any ADHD Medication who are prescribed a dose exceeding the recommended maximum (>1 times the recommended maximum). Three levels are provided:

- >1 times higher than the recommended maximum;
- >1.5 times higher than the recommended maximum; and
- >2.0 times higher than the recommended maximum.

### Eligible Population:

**Age:** Adults age  $\geq 18$  , Adolescents age 13-17, Child age  $< 13$ .

**Inclusion Criteria:** Medicaid enrollee who is prescribed any active ADHD Medication within 35 days of the report date.

**Exclusion Criteria:** None.

### Specification:

**Numerator:** Enrollees (from the denominator) currently on a dose exceeding the recommended maximum based on the PDR by a factor of >1.0: >1.5; >2.0 times, as of 35 days of the report date.

Denominator: Eligible Population

## Higher than Recommended Dose, Summary

**Description:** The proportion of Medicaid enrollees on any psychotropic who are prescribed a dose exceeding the recommended maximum (>1 times the recommended maximum). Three levels are provided:

- >1 times higher than the recommended maximum;
- >1.5 times higher than the recommended maximum; and
- >2.0 times higher than the recommended maximum.

**Eligible Population:**

**Age:** Adults age  $\geq 18$  , Adolescents age 13-17, Child age  $< 13$ .

**Inclusion Criteria:** Medicaid enrollee who is prescribed any active psychotropic within 35 days of the report date.

**Exclusion Criteria:** None.

**Specification:**

**Numerator:** Enrollees (from the denominator) currently on a dose exceeding the recommended maximum based on the PDR by a factor of >1.0: >1.5; >2.0 times, as of 35 days of the report date.

Denominator: Eligible Population