Anxiolysis (Minimal Sedation) for Procedures and Tests

This practice algorithm has been specifically developed for MD Anderson using a multidisciplinary approach and taking into consideration circumstances particular to MD Anderson, including the following: MD Anderson’s specific patient population; MD Anderson’s services and structure; and MD Anderson’s clinical information. Moreover, this algorithm is not intended to replace the independent medical or professional judgment of physicians or other health care providers. This algorithm should not be used to treat pregnant women.

NOTE: Refer to UTMDACC Institutional Policy #CLN0502 for complete information

TREATMENT

- Document mental status and vital signs prior to procedure
- Determine appropriate medication, dose, and consider onset of action (see chart below) of anxiolytic for desired patient response
- Continue with procedure and document mental status and vital signs pre- and post-procedure

Discharge patient when clinically stable and follow institutional processes regarding discharge instructions and criteria for both inpatient and outpatient settings

**Patient scheduled for procedure or test**

Assess need for anxiolysis prior to procedure

Patient needs anxiolysis?

- Yes
  - Document mental status and vital signs prior to procedure
  - Determine appropriate medication, dose, and consider onset of action (see chart below) of anxiolytic for desired patient response
  - Continue with procedure and document mental status and vital signs pre- and post-procedure
- No
  - Continue with procedure

**Adult Recommended Anxiolysis Dosing**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Adult Dose</th>
<th>Route</th>
<th>Onset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midazolam</td>
<td>5 – 10 mg</td>
<td>PO</td>
<td>10-30 minutes</td>
</tr>
<tr>
<td>Lorazepam</td>
<td>0.5 – 2 mg</td>
<td>PO</td>
<td>30-60 minutes</td>
</tr>
<tr>
<td></td>
<td>1 – 4 mg</td>
<td>IM</td>
<td>20-30 minutes</td>
</tr>
<tr>
<td>Diazepam</td>
<td>5 – 10 mg</td>
<td>PO</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Alprazolam</td>
<td>0.25 – 0.5 mg</td>
<td>PO</td>
<td>60 minutes</td>
</tr>
</tbody>
</table>

- Consider lower dosing strategies if patient received concomitant opiates, benzodiazepines or similar synergistic sedative medications. Pediatric resuscitative equipment should be available or easily accessible. Flumazenil is available for patients requiring reversal of sedation.

**Pediatric Recommended Anxiolysis Dosing**

<table>
<thead>
<tr>
<th>Drug</th>
<th>Pediatric Dose</th>
<th>Route</th>
<th>Onset</th>
<th>Maximum Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midazolam</td>
<td>0.5 – 1 mg/kg/dose</td>
<td>PO</td>
<td>10-20 minutes</td>
<td>5 mg</td>
</tr>
</tbody>
</table>

1. Dosing adjustments: use lower doses for patients greater than 60 years, debilitated patients, hepatic/renal impairment and in combination with narcotics or with other CNS depressants.
2. Flumazenil is available for patients requiring reversal of sedation.
3. Midazolam is preferred due to shorter half-life.
4. Consider lower dosing strategies if patient received concomitant opiates, benzodiazepines or similar synergistic sedative medications. Pediatric resuscitative equipment should be available or easily accessible. Flumazenil is available for patients requiring reversal of sedation.
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SUGGESTED READINGS


Adding Intranasal Lidocaine to Midazolam may benefit children undergoing Procedural Sedation. *Archives of Disease in Childhood* 2011. (Side effects of intranasal and use of intranasal lidocaine)
This practice consensus algorithm is based on majority expert opinion of the Anxiolysis work group faculty at the University of Texas MD Anderson Cancer Center. It was developed using a multidisciplinary approach that included input from the following:

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