Supplementary 1. Patient Decision Aids (English Version)

Which reversal muscle relaxant agent should I choose after general anesthesia?

The process of general anesthesia

During general anesthesia, anesthesiologists usually administer a muscle relaxant to make sure the patient is paralysed rapidly. This enables them to safely perform endotracheal intubation, which helps the operation process. After completion of the surgery, anesthesiologists administer a muscle relaxant reversal agent at the appropriate time to reverse residual paralysis under natural metabolism, thereby helping the patients gain their baseline muscle power.

Traditional type of reversal agents

Traditional reversal agents improve the patients’ recovery from paralysis but take longer to complete reversal. They are also associated with more frequent incidence of complications, including residual paralysis, which cause delayed extubation and related complications, vomiting, blurry vision, abdominal cramping, bradycardia, and even cardiac arrest.

What is sugammadex

Sugammadex is a newer muscle relaxant reversal agent that acts directly against muscle relaxant molecules in the plasma, thus helping the patients to rapidly and safely regain their muscle power. This eliminates the risk of residual paralysis due to high-dose muscle relaxants.

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<tr>
<th>Neostigmine (traditional type)</th>
<th>Comparison</th>
<th>Sugammadex (new type)</th>
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| Increases neuromuscular transmitter concentration, stimulates muscle contraction | **Mechanism**
  - Slow (7.5–10.8 min)  
  - High  
  - More common  
  - High  
  - Headache, urinary retention, blurry vision, diarrhea  |
| Time to meet 90% recovery of muscle power  
| Incidence of residual paralysis  
| Incidence of respiratory complications  
| Risk of bradycardia or hypotension  
| Postoperative nausea or vomiting  
| Postoperative dry mouth  |
| Rapid (1.6–2.2 min)  
| Extremely low  
| Low  
| Nearly none  
| Low  
| Dysgeusia, oral contraceptives dysfunction, headache  |
| Older adults, obesity, endoscopy surgery, fine surgery (brain, eye, and spinal cord)  
| End-stage renal disease  |
| Included in Taiwan’s National Health Insurance  |
| Fee  |
| Self-paid (6000–9000 NTD)  |
Please answer the following questions to help you make your decisions.

A. How much do you know about the reversal agents now?
   a. Newer reversal agents, such as sugammadex, can reverse the paralysis status faster and completely. □ Yes □ No □ Not sure
   b. Traditional reversal agents, such as neostigmine, affect the cardiovascular system more than sugammadex. □ Yes □ No □ Not sure
   c. Newer reversal agents, such as sugammadex, have a lower incidence of adverse effects. □ Yes □ No □ Not sure

B. Which parts do you care about the most during medical intervention?
   ▶ 1 is ‘not at all important’ and 5 is ‘very important.’

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<tr>
<td>Time to recover</td>
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<td>Incidence of residual paralysis</td>
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<td>Cardiovascular adverse effects</td>
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<td>Economical concern</td>
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C. Do you receive enough support during decision-making?
   a. I need to discuss this with my family sufficiently. □ Yes □ No
   b. I need to make sure if my health insurance includes the self-paid medications. □ Yes □ No
   c. I have already received sufficient information for my decision after consulting with the physicians. □ Yes □ No

D. Your decision.
   □ Use sugammadex, the newer reversal agent.
   □ Use neostigmine, the traditional reversal agent.
   □ I can’t make my decision now and need to discuss more with my physician.

E. References