Wilson's Heart

### Prompt:  
  
"I have a case involving a 29-year-old female patient who was transported to the emergency department after sustaining multiple physical injuries in a bus accident. Following surgery at a local hospital, she exhibited deteriorating vital signs, including tachycardia and eventually developed ventricular fibrillation. Despite resuscitative efforts, her condition could not be stabilized initially, prompting a transfer to a higher level of care for advanced management.   
  
Upon examination, it was noted that her symptoms might be linked to a series of medications she had taken prior to the accident, specifically a drug commonly used to treat influenza-related symptoms. Additionally, her medical history revealed no prior significant health conditions, and she had been prescribed multiple medications for weight control, including amphetamines and serotonin reuptake inhibitors.   
  
As her clinical team evaluated her, they discovered that she was also demonstrating signs of liver failure and jaundice, raising concerns that her organ systems were progressively failing. Given the patient's acute decline following exposure to these medications and her recent renal assessment, what would be the most likely diagnosis, and what further tests could clarify the underlying cause of her rapid clinical deterioration?"  
  
### Expected LLM Response:  
  
"In this context, the patient's rapid deterioration following the bus accident and surgery points towards a case of accidental amantadine toxicity. Amantadine, a medication used for treating influenza and as a Parkinson's disease adjunct, can lead to toxicity, particularly in patients with renal impairment, as it is primarily excreted via the kidneys.   
  
Differential Diagnoses:  
1. \*\*Accidental Amantadine Overdose\*\*: The patient's use of amantadine, especially in the setting of acute renal failure, raises the likelihood of this diagnosis. Elevated levels can lead to CNS toxicity, causing manifestations like tachycardia and arrhythmias.  
2. \*\*Acute Liver Failure\*\*: Given her jaundice and the rapid onset of liver dysfunction, it's also vital to consider potential hepatotoxicity from other medications or drug interactions.  
3. \*\*Sepsis from Pneumonia\*\*: If her infection is systemic due to flu, this could lead to multi-organ failure, but the timeline makes amantadine toxicity a stronger candidate.  
  
Recommended Diagnostic Tests:  
- \*\*Toxicology Screen\*\*: To establish amantadine levels in the serum.  
- \*\*Liver Function Tests\*\*: To assess the degree of hepatotoxicity and liver function.  
- \*\*Renal Function Tests\*\*: To evaluate the extent of kidney involvement and the need for dialysis.  
- \*\*Ultrasound of the abdomen\*\*: To assess for any signs of complications like abscesses or hepatic rupture.  
  
Considering the patient's acute clinical state following her medication history, the most plausible diagnosis remains \*\*Accidental Amantadine Overdose\*\*, which can precipitate multiple organ failures due to its nephrotoxic effects when coupled with renal dysfunction."  
  
### DISEASE:  
Accidental Amantadine Overdose