

**Table 4. Outcomes of Choosing Wisely in Saudi Arabia (continued)**

Location	Initiative	Interventions	Duration and target population	Outcomes
<b>Pharmacy</b>				
King Khalid General Hospital, Hafr Albatin Region	Addressing overprescription of antibiotics for acute mild to moderate sinusitis	Clinician champion, education of provider, and education of patients and their families	<ul style="list-style-type: none"> <li>8 months</li> <li>Patients of all ages visiting the medical emergency department</li> </ul>	Reduction in proportion of patient encounters where amoxicillin clavulanic acid was prescribed from 79.5% to 54.6%
Children's Hospital, Taif Region	Oral rehydration therapy as an alternative to IV fluids for children with mild to moderate dehydration	Clinician champion, updating management protocol, education of providers, education of patient's parents or family members	<ul style="list-style-type: none"> <li>8 months</li> <li>Paediatric patients</li> </ul>	<ul style="list-style-type: none"> <li>72.4% decrease in administration of IV fluids</li> <li>138% increase in use of oral rehydration therapy</li> <li>decrease in phlebitis incidence from 5.3% to 2%</li> </ul>
Children's Hospital, Taif Region	Addressing antibiotic misuse for upper respiratory tract infections	Clinician champion, updating management protocol, education of providers, health education of the patient's parents or family members	<ul style="list-style-type: none"> <li>8 months</li> <li>Paediatric patients</li> </ul>	25% reduction in percentage of patients with upper respiratory tract infections receiving antibiotics
King Fahad Hospital, Madinah Region	Overprescription of human albumin	Clinician champion, developing protocols for physicians and pharmacists	<ul style="list-style-type: none"> <li>6 months</li> <li>Laboratory results of patients attending hospital</li> </ul>	53.3% reduction in prescription of human albumin
International Medical Center (Private), Jeddah Region	PPIs Stewardship	Clinician champion, provider education, stewardship flowchart	<ul style="list-style-type: none"> <li>5 months</li> <li>Patients attending hospital</li> </ul>	<ul style="list-style-type: none"> <li>25.3% reduction in admitted patients receiving PPIs</li> <li>19.4% increase in avoidance of nonindicated PPIs</li> </ul>
<b>Laboratory</b>				
Prince Sultan Cardiac Center (Military), Riyadh Region	Reducing vitamin D laboratory testing at outpatient clinics	Reducing vitamin D laboratory testing at outpatient clinics	<ul style="list-style-type: none"> <li>10 months</li> <li>Patients of all ages in outpatient clinics</li> </ul>	98.45% reduction in executed requested vitamin D laboratory tests

Location	Initiative	Interventions	Duration and target population	Outcomes
King Fahad Hospital, Madinah Region	Overuse of troponin test to diagnose heart attacks	Overuse of troponin test to diagnose heart attacks	<ul style="list-style-type: none"> <li>6 months</li> <li>Patients with suspected acute myocardial infarction</li> </ul>	10.9% reduction in troponin test in 6 months
King Khalid General Hospital, Hafr Albatin Region	Addressing overuse of CK-MB in diagnosis of acute myocardial infarction	Addressing overuse of CK-MB in diagnosis of acute myocardial infarction	<ul style="list-style-type: none"> <li>8 months</li> <li>Patients with suspected acute myocardial infarction medical emergency department</li> </ul>	Reduction in proportion of patient encounters where CK-MB analyses were performed from 7.1% to 6%
<b>Radiology</b>				
King Faisal Medical Complex, Taif Region	Controlling utilization of emergency brain CT	Clinician champion, updating policy procedures, and guidelines, education of providers, and improving communication between staff of radiology and emergency departments	<ul style="list-style-type: none"> <li>6 months</li> <li>Patients of all ages visiting Medical Emergency Department</li> </ul>	<ul style="list-style-type: none"> <li>23.2% reduction in brain CT</li> <li>183% increase in CT with significant results</li> </ul>
King Fahad Hospital, Madinah Region	Overuse of neuroimaging with intravenous contrast	Clinician champion, developing policies and protocols, and education of providers	<ul style="list-style-type: none"> <li>6 months</li> <li>Patients attending hospital</li> </ul>	27.7% reduction in neuroimaging with intravenous contrast
King Fahad Hospital, Madinah Region	Overuse of MRI body imaging with IV and oral contrast	Clinician champion, developing policies and protocols, and education of providers	<ul style="list-style-type: none"> <li>6 months</li> <li>Patients attending the hospital</li> </ul>	40.6% reduction in MRI body imaging with IV and oral contrast
King Fahad Hospital, Madinah Region	Overuse of MRI musculoskeletal imaging with IV contrast	Clinician champion, developing policies and protocols, and education of providers	<ul style="list-style-type: none"> <li>6 months</li> <li>Patients attending the hospital</li> </ul>	35.5% reduction in MRI musculoskeletal imaging with IV contrast
King Khalid General Hospital, Hafr Albatin Region	Addressing overuse of brain CT for patients with minor head injury	Clinician champion, decision rules, education of provider, and education of patients and their families	<ul style="list-style-type: none"> <li>8 months</li> <li>Patient with minor head injury surgical and trauma emergency department</li> </ul>	Reduction in proportion of patient encounters where brain CT were performed from 12.4% to 9.3%

CK-MB = creatine kinase-myocardial band; CT = computed tomography; IV = intravenous; MRI = magnetic resonance imaging; PPI = proton pump inhibitor.