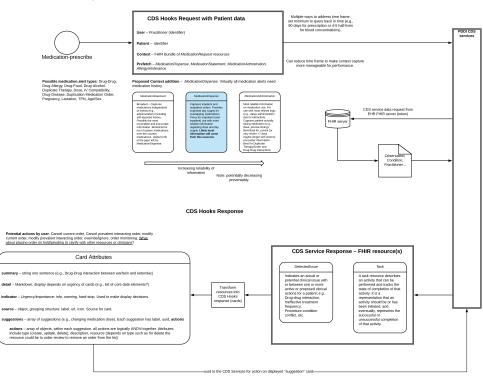


Context and Prefetch					
Use-case data elements	FHIR resource	Resource attribute			
Prescription for systemic NSAID?	MedicationRequest	medication			
Is the patient currently taking warfarin. PPI (proton pump inhibitor), insognostol, CS (systemic corticosterioti), MCRA (smimineralocosterioti), IN DNSAID, multi NSAID	MedicationDispense	medication (Hx), daysSupply, whenHandedOver, dosage			
	MedicationStatement	medication (Hx), taken, dosage			
	MedicationAdministration	medication (Hx), notGiven, effectiveDateTime, dosage.dose, dosage.route			

Hooks: In standard - Medication-prescribe; Potential - Medication-selection, Medication-verification, Medication-review...



CDS service response					
Core data elements	Use-case data elements	Data	FHIR resource	Resource attribute	
Drugs involved	warfarin and NSAID	terminology (e.g., RxNorm)	Detectedissue	category, implicated (MedicationRequest, MedicationDispense, MedicationStatement, MedicationAdministration)	
Clinical consequences	Increased risk of bleeding including gastrointestinal bleeding, intracranial hemorrhage, and oarebral hemorrhage	terminology (e.g., ICD-10 or SNOMED-CT)	Detectedissue	detail? (textual explanation of detected issue)	
Evidence for suspected DDI	Non-steroidal anti-inflammatory drugs (NSAIDs) have antiplatelet effects which increase the bleeding risk when combined with oral anticoagulants such as warfarin. The arriplatelet effect of NSAIDs lasts only as long as the INSAID is present in the circulation, unifixe agains amplitately effect, which lasts for up to 2 weeks after aspirin is discontinued. NSAIDs also can cause peptic	text, link?	DetectedIssue	reference	
Frequency of exposure to the PDOI	unknown	numeric?	DetectedIssue		
Frequency of harm	unknown	numeric?	DetectedIssue		
Contextual/modifying factors	PPI, misoprostol	terminology (e.g., FoxNorm)	DetectedIssue	mitigation (action extension) may need more than action extension to include components (e.g., PPI and misoprostol)	
Contextual rindulying factors	CS (systemic corticosteriold), MCRA (antimineralocorticold), HD NSAID, multi NSAID	terminology (e.g., RxNorm)	DetectedIssue	exacerbation (doesn't exist)	
Mechanism of interaction	Non-steroidal anti-inflammatory drugs (NSAIDs) have antiplatelet effects which increase the bleeding risk when combined with oral anticoagulants such as warfarin. The antiplatelet effect of NSAIDs lasts only as long as the NSAID is present in the circulation, unlike asprin'is antiplatelet effect, which lasts for up to 2 weeks after asprin is discontinued. NSAIDs also can cause peptic	text with terminology reference	DetectedIssue		
Recommended actions	If the NSAID is being used as an analgesic or antipyretic, it would be prudent to use an alternative such as acetaminophen. In some people, acetaminophen can increase the anticoagulant effect of warfarin, so monitor the INR if acetaminophen is used in closes over 2 giday for a few days. For more severe pain consider short-term opicids in place of the NSAID.	text, link, resource?	Task	definition, intent, priority, description, relevantHistory, strengthOfRecommendation extension (A rating system that describes the strength of the recommendation, such as the GRADE, DynaMed, or HGPS systems. Strong Weak)	
Evidence for action	For each recommended action (e.g., Both conticosteroids and aldosterone antagonists have been shown to substantially increase the risk of UGIB in patients on NSAIDs, with relative risks of 12.8 and 11 respectively compared to a risk of 4.3 with NSAIDs alone [MASCLEE-2014])	text, link, resource?	Task	definitionReference or qualityOfEvidence extension (A rating system that describes the quality of evidence such as the GRADE, DynaMed, or Oxford CEBM systems. High, Moderate, Low, Very low)	
Seriousness rating	Bleeding is a serious potential clinical consequence because it can result in death, life-threatening hospitalization, and disability.	text	Detectedissue		
Severity	While bleeding is a serious potential clinical consequence, severity can vary from easily tolerated to incapacitating	terminology	DetectedIssue	severity (High, Moderate, Low)	

Opicid IG used CarePlan, but I am proposing Task since it can be tracked to completion (successful or unsuccessful), has levels of priority, codeable task type that could better match Card action attribute (create, update, detect), and it may help with placing the medication order as pending further information by monitoring states.

FHIR server data request						
Use-case data elements	FHIR resource	Resource attribute				
Is the patient >65?	Patient	birthDate				
Does the patient have a Hx of	Condition	code, severity, bodySite, onset, abatement, stage, evidence				
UGIB?	Observation	code, effective, bodySite				