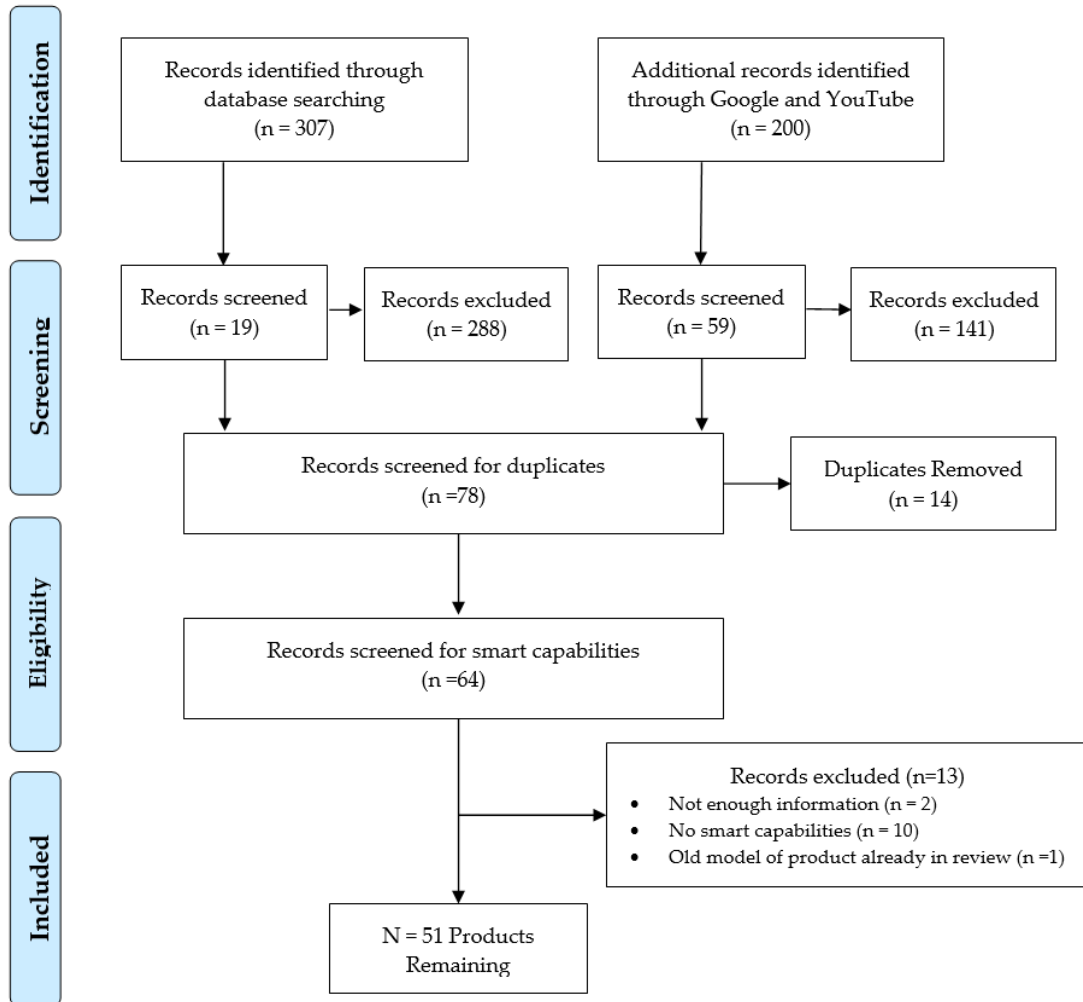


APPENDIX 1 Database-specific search strategy

Database	Search Strategy
PubMed	(medication adherence[mesh] OR medication adherence[ti] OR medication therapy management[mesh] OR medication therapy management[ti] OR medication management[ti]) OR ((medication*[ti] OR drug*[ti]) AND (adhere*[ti] OR nonadher*[ti] OR compli*[ti] OR comply[ti])) AND (mobile applications[mesh] OR mobile*[ti] OR smart*[ti] OR mhealth[ti] OR technology[mesh] OR technolog*[ti] OR electronics[mesh] OR electronic*[ti] OR computers, handheld[mesh]) AND (dispens*[ti] OR product*[ti] OR device*[ti] OR delivery unit[ti])
Scopus	(TITLE-ABS-KEY ( medication AND compliance) OR TITLE-ABS-KEY ( medication AND adherence ) OR TITLE-ABS-KEY ( medication AND non-adherence ) OR TITLE-ABS-KEY ( medication AND management ) AND TITLE-ABS-KEY ( smart AND technology ) OR TITLE-ABS-KEY ( smart AND dispenser ) OR TITLE-ABS-KEY ( smart AND blister ) )
Embase	<ol style="list-style-type: none"> <li>1. (medication adherence or medication management or medication therapy management).ti</li> <li>2. (dispens* or product* or device* or delivery unot*).ti</li> <li>3. (smart*or mhealth*or technolog* or electronic* or mobile*).ti</li> <li>4. ((medication or drug) adj3(adh*or nonadh* or compli* or comly*)).ti</li> <li>5. 1 or 4</li> <li>6. 2 and 3 and 5</li> </ol>

## APPENDIX 2 PRISMA flow diagram for the review of smart medication adherence products



### APPENDIX 3 Commercially available oral smart MAPs

Product Name	Product Manufacturer	Country or Region of Availability	Cost	Subscription Fee	Storage Capacity	Alarm	Locking Feature	Portability	Patient Notifications	Cell Phone Required
<b>Automated Dispensers</b>										
Emma	INRange Systems, Inc.	NA	NR	✓	Multidose	✓	✓		✓	
e-pill MedSmart Plus	Cadex Watch	Global	\$\$\$		Multidose	✓	✓		✓	
Evendos	Evendos	Europe	NR	✓	Multidose	✓	✓		✓	
GMS Bluetooth Automatic Pill Dispenser	GMS	NA	\$\$\$		Multidose	✓	✓	✓	✓	✓
Hero	Hero	NA	\$\$\$	✓	Multidose	✓	✓		✓	
Karie	AceAge Inc	NA	\$\$\$	✓	Multidose	✓	✓		✓	✓
Livi	PharmRight Corporation	NA	\$\$	✓	Multidose	✓	✓		✓	
MedaCube	PharmAdv	NA	\$\$\$		Multidose	✓	✓		✓	
MedReady MR-357FL	MedReady	NA	\$\$\$	✓	Multidose	✓	✓		✓	
Philips Medication Dispenser	Philips	NA	\$\$	✓	Multidose	✓	✓		✓	
Pillo	Pillo Health	NA	\$\$\$	✓	Multidose	✓	✓		✓	✓
Pria	Black+Decker	NA	\$\$\$	✓	Multidose	✓	✓		✓	✓
RxPense®	Medipense	Global	NR		Multidose	✓	✓		✓	
Smart Pill Box Medicine Management System	Bluestar Seniortech	NA	\$\$	✓	Multidose	✓	✓	NR	✓	✓
Spencer	Catalyst Health	NA	NR	✓	Multidose	✓			✓	
TabSafe	TabSafe Medical Services Inc	NA	\$\$\$	✓	Multidose	✓	✓		✓	
<b>Blister Packages/ Blister Package Holders</b>										
Popit Sense	Popit	Global except NA	\$\$		Unitdose	✓		✓	✓	✓
SimpleMed+ Medication Dispenser	Vacia	Global	\$\$	✓	Multidose	✓	✓		✓	✓
<b>Dosette/ Pill Boxes</b>										
Elliegrid	elliegrid	NA	\$\$\$	✓	Multidose	✓			✓	✓
JON	MedMinder	NA	\$\$	✓	Multidose	✓	✓	NR	✓	
MAYA	MedMinder	NA	\$	✓	Multidose	✓		NR	✓	
Pillgo	QuaLife	Global	\$\$\$		Multidose	✓			✓	✓
Wisepill RT2000	Wisepill Technologies	Global	NR		Multidose			✓	✓	✓

Storage Boxes									
evriMED1000	WisepII Technologies	Global	\$	✓	Multidose	✓			✓
Sensemedic blister box	Evalan	Global	NR		Unitdose			NR	✓
Sensemedic pill dispenser	Evalan	Global	NR		Unitdose			NR	✓
Vials/ Vial Caps									
GlowCap	Vitality Inc / NantHealth	NA	\$	✓	Unitdose	✓		✓	✓
ILidRx	iRx Reminder LLC	NA	NR	NR	Unitdose	✓	✓	✓	✓
Pillsy	Pillsy Inc	NA	NR		Unitdose	✓		✓	✓
Sensemedic pill bottle	Evalan	Global	NR		Unitdose			NR	✓
Smart bottle	AdhereTech	NA (SP)	Free		Multidose			✓	✓
SmartMedReminderTM system	Concordance Health Solutions	NA (SP)	NR	NR	Multidose	✓		✓	✓

NA = North America, NR = Information was not reported, SP = Speciality Pharmacies

\$ is < \$50, \$\$ is between \$50 – \$99, \$\$\$ is between \$100 – \$499, \$\$\$\$ is > \$500

#### APPENDIX 4 Commercially available non-oral smart MAPs

Product Name	Product Manufacturer	Country or Region of Availability	Cost	Subscription Fee	Alarm Portability	Patient Notifications	Cell Phone Required
<b>Smart inhalers</b>							
Airduodigihaler™	Teva Pharmaceutical	NA	\$\$		✓		
Findair™	Krakow Tech	EU	\$\$		✓	✓	✓
Hailie™	AstraZeneca	NA	\$\$\$		✓	✓	✓
ProAir™ digihaler™	Teva Pharmaceutical	NA	\$\$		✓		
Propeller Sensor	Propeller Health	NA	Free		✓	✓	✓
<b>Smart injectors</b>							
inPen	Companion medical	NA	\$\$	✓	✓		✓

EU = Europe, NA = North America, NR = Information was not reported  
 \$ is < \$50, \$\$ is between \$50 – \$99, \$\$\$ is between \$100 – \$499, \$\$\$\$ is > \$500

## APPENDIX 5 Prototype smart MAPs

Product Name	Product Manufacturer	Storage Capacity	Alarm	Locking Feature	Portability	Patient Notifications	Cell Phone Required
<b>Automated Dispenser</b>							
Electronic Medication Dispenser	NR	Multidose	✓		NR	✓	
Dyn-e-pill system	NR	Multidose	✓	✓	NR	✓	✓
Smart drug dispenser	Balda Healthcare	Unitdose	✓	✓	✓	✓	✓
Medicube	NR	Multidose	✓	NR	NR	✓	
<b>Blister Pack</b>							
Smart blister pack	NR	Unitdose			✓	✓	✓
PillTracker	PillTracker	Unitdose	✓	✓	✓	✓	
Smart blister pack	NR	Unitdose			✓		
<b>Dossette/Pill boxes</b>							
DoPill	Domedic	Multidose	✓		✓	✓	
Smart medication dispenser	NR	Multidose	✓				
Pillconnect	Euclid	Unitdose	✓	✓	✓	✓	✓
Smart pillbox	Jeyun Medical Co	Multidose	✓			✓	
Smart pill box	NR	Multidose	✓			✓	
<b>Storage Box</b>							
Time4Med	Adherence Innovations	NR			✓		
NR = Information was not reported							

Faisal S, et al. A review of features and characteristics of smart medication adherence products. *Can Pharm J (Ott)* 2021;154. DOI: 10.1177/17151635211034198.