

# Safety Enhanced Design Brief

## Medication Lists

To be effective at improving health, medication lists must give providers a quick holistic view of the patient, but also help them make specific treatment decisions.

Useful medication lists are challenging to design, because of the complexity and time course of medication information and the variety of tasks that they support.

### 1 Design medication lists to support key user tasks including

- An overview of what the patient is currently taking
- Managing treatment decisions
- Renewing medications
- Reconciling medications
- Reviewing time course
- Managing temporary changes
- Reviewing treatment that was effective or ineffective
- Assessing adherence

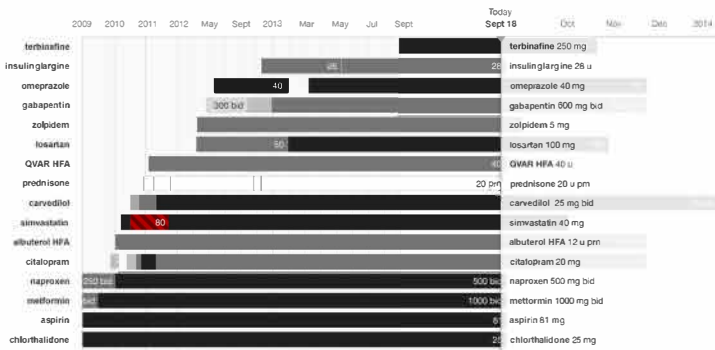
### 2 To give a quick overview, use a simple list of current medications that emphasizes drug names (and then strengths) and de-emphasizes other information:

Bad	Good	Better																												
<p>Current medications: (selected)</p> <p>Prescriptions</p> <p>Ordered</p> <ul style="list-style-type: none"> <li>- albuterol HFA prn (90mcg/spray) (ProAir HFA) oral spray; 90 mcg/spray, 2 puffs, oral, every 4 hours as needed, 21.6 mg/1 unit</li> <li>- beclomethasone HFA (QVAR 40 HFA) oral spray; 40 mcg/spray; 40 mcg/spray, 2 puffs, oral, twice a day, 9.6 mg/1 unit</li> <li>- carvedilol 25 mg oral tablet; 25 mg 1 tablet, oral, 2 times a day, 180 tablets</li> <li>- chlorthalidone 25 mg oral tablet; 25 mg 1 tablet, oral, daily, 90 tablets</li> <li>- citalopram 20 mg oral tablet; 20 mg 1 tablet, oral, daily, 90 tablets</li> <li>- gabapentin 600 mg oral tablet; 600 mg 1 tablet, oral, 2 times a day, 180 tablets</li> <li>- insulin glargine (Lantus) 40 units subcut at bedtime, 10 ml</li> <li>- losartan 100 mg oral tablet; 100 mg, 1 tablet, oral, daily, 90 tablets</li> <li>- metformin 1000 mg oral tablet; 100 mg, 1 tablet, oral, 2 times a day, 180 tablets</li> </ul>	<p>Medications</p> <p><i>Last updated 1 month ago</i></p> <ul style="list-style-type: none"> <li>albuterol HFA 90mcg/spray 2 puffs every 4 hr as needed</li> <li>aspirin 81mg 1 tablet daily</li> <li>beclomethasone HFA (QVAR 40 HFA) 40mcg/spray 2 puffs daily</li> <li>carvedilol 25mg 1 twice daily</li> <li>chlorthalidone 25mg 1 tablet daily</li> <li>citalopram 20mg 1 tablet daily</li> <li>gabapentin 600mg 1 twice daily</li> <li>insulin glargine (Lantus) 40 units 1 at bedtime</li> <li>losartan 100mg 1 daily</li> <li>lisinopril 20mg 1 daily</li> <li>metformin 1000mg 1 twice daily</li> </ul>	<table border="1"> <thead> <tr> <th>Medication</th> <th>Instructions</th> </tr> </thead> <tbody> <tr><td>albuterol HFA 90 mg</td><td>2 puffs every 4 hours as needed</td></tr> <tr><td>aspirin 81 mg</td><td>1 daily</td></tr> <tr><td>beclomethasone HFA 40</td><td>2 puffs twice daily</td></tr> <tr><td>carvedilol 25 mg</td><td>1 twice daily</td></tr> <tr><td>chlorthalidone 25 mg</td><td>1 daily</td></tr> <tr><td>citalopram 20 mg</td><td>1 daily</td></tr> <tr><td>gabapentin 600 mg</td><td>1 twice daily</td></tr> <tr><td>insulin glargine 28 units</td><td>28 units at bedtime</td></tr> <tr><td>losartan 100 mg</td><td>1 daily</td></tr> <tr><td>metformin 1000 mg</td><td>1 twice daily</td></tr> <tr><td>naproxen 500 mg</td><td>1 twice daily</td></tr> <tr><td>omeprazole 40 mg</td><td>1 daily</td></tr> <tr><td>prednisone 20 mg</td><td>2 daily</td></tr> </tbody> </table>	Medication	Instructions	albuterol HFA 90 mg	2 puffs every 4 hours as needed	aspirin 81 mg	1 daily	beclomethasone HFA 40	2 puffs twice daily	carvedilol 25 mg	1 twice daily	chlorthalidone 25 mg	1 daily	citalopram 20 mg	1 daily	gabapentin 600 mg	1 twice daily	insulin glargine 28 units	28 units at bedtime	losartan 100 mg	1 daily	metformin 1000 mg	1 twice daily	naproxen 500 mg	1 twice daily	omeprazole 40 mg	1 daily	prednisone 20 mg	2 daily
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### 3 To support detailed decision making use a detailed interactive table that is compact, easy to read, and quickly sortable and searchable:

Medication	Dose	Frequency	Quantity	Refills	Condition	Provider	Prescribed	2011	2012	2013	2014	Renew by
albuterol HFA	2 puffs	q4hprn	12	12	Asthma	Belden MD	12 Jan 2010					22 Nov 2013
aspirin	81 mg	1 d			Diabetes	OTC						
beclomethasone HFA	2 puffs	bid	12	12	Asthma	Belden MD	19 Feb 2011					19 Sep 2013
carvedilol	12.5 mg	1 bid	90	3	Hypertension	Belden MD	12 Jul 2010					20 Feb 2014
chlorthalidone	25 mg	1 d	90	3	Hypertension	Belden MD	19 Sep 2006					19 Sep 2013
citalopram	20 mg	1 d	90	3	Depression	Shoyinka MD	23 Nov 2009					22 Nov 2013
gabapentin	600 mg	1 bid	60	11	neuropathic pain	Belden MD	19 Apr 2012					22 Nov 2013
insulin glargine	28 u	daily	90	11	Diabetes	Brietzke MD	19 Nov 2012					19 Sep 2013

### 4 To support an understanding of the time course of treatment, use an interactive timeline that shows dose (relative to maximum dose) at a glance:



**How to read the timeline**

Timeframe: ← Past → Future →

Total daily dose:

- Light grey: is low
- Dark grey: is less than minimum
- Black: Maximum
- Red: Over than maximum