



Dose Optimization

Today, healthcare organizations are being tasked with the job of providing costly new technologies, expanding services, and improving quality of care. All this while still trying to hold the line on escalating medical and pharmaceutical costs. One cost-saving measure that is simple to implement and well accepted by providers and patients alike is called **Dose Optimization**. Dose Optimization refers to the identification of patients who receive multiple units (tablets or capsules) of a lower strength, once-daily maintenance medication and taking action to consolidate (or 'optimize') the dosing regimen to an equivalent daily dosage of the same medication given as a single unit. This intervention is particularly successful for those medications available in a number of different strengths with parity (or near parity) pricing.

For example, let's take a look at America's best selling brand name medication, LIPITOR. Both the 20mg and 40mg strengths of LIPITOR are similarly AWP priced at \$4.77 a table. A simple conversion from two 20mg tablets to one 40mg could save an estimated \$1,717 over a 12 month time period. An extreme example of dose optimization would be the case of switching a patient on REVLIMID five x 5mg tablets to a single 25mg tablet daily which could **save the healthcare system nearly half a million dollars (\$486,131.52) annually!** Even drugs like AZOR that do not have parity pricing can lead to significant cost savings when considered over an extended period of time which is common for most chronic conditions. In addition, to the cost savings, simplifying the dosage schedule is likely to improve patient compliance and possibly lower out-of-pocket costs for your patients.

So if the savings are so significant and the switch would appear to be a rather simple exercise, why don't providers do a better job of optimizing their patient drug regimens? Several factors may contribute to this phenomenon including: a) lack of clinician awareness, b) inappropriate drug titration, and c) drug sampling. Physicians are often unaware that a medication is available in multiple dosage strengths, and even less aware of the pricing differentials among these dosages. In addition, because a patient may be started on lower dosage strength, it is common for a provider to instruct their patient to utilize some multiple of their current prescription instead of writing a new one. Lastly, samples are often utilized to test patient tolerability and provide a supply of medication through the titration phase of therapy. Once the patient exhausts the supply of the sample, many providers simply provide a prescription for the same multiple units per day regimen to continue their therapy.

Please see below a list of examples of once-daily medications that have multiple dosage strengths with either parity or near parity pricing. This list is certainly not exhaustive and many more examples likely exist. When in doubt remember to contact your local retail pharmacist to determine what strengths of a medication are available and if the pricing for these different strengths are the same or nearly similar.

Generic (BRAND Name)	Dosage Strengths	AWP pricing Example	Estimated Annualized Savings
Amlodipine/olmesartan (AZOR)	5/20mg, 5/40mg, 10/20mg, 10/40mg	5/20mg = \$2.91 10/40mg = \$4.18	\$457.20
Armodafinil (NUVIGIL)	50mg, 150mg, 250mg	50mg = 3.73 250mg = \$11.23	\$2,671.20
Atorvastatin (LIPITOR)	10mg, 20mg, 40mg, 80mg	20mg = \$4.77 40mg = \$4.77	\$1,717.20
Desvenlafaxine (PRISTIQ)	50mg, 100mg	50mg = \$4.26 100mg = \$4.26	\$1,533.60
Escitalopram (LEXAPRO)	5mg, 10mg, 20mg	10mg = \$3.37 20mg = \$3.52	\$1,159.20
Fesoterodine (TOVIAZ)	4mg, 8mg	4mg = \$4.78 8mg = \$4.78	\$1,720.00
Lansoprazole (PREVACID)	15mg, 30mg	15mg = \$6.25 30mg = \$6.25	\$2,250.00
Lenalidomide (REVLIMID)	5mg, 10mg, 15mg, 25mg	5mg = \$371.13 15mg = \$404.85	\$238,069.44
Rosuvastatin (CRESTOR)	5mg, 10mg, 20mg, 40mg	5mg = \$3.97 10mg = \$3.97	\$1,429.10
Thalidomide (THALOMID)	50mg, 100mg, 150mg, 200mg	50mg = \$136.58 150mg = \$237.05	\$62,168.40
Venlafaxine (EFFEXOR XR)	37.5mg, 75mg, 150mg	75mg = \$4.42 150mg = \$4.82	\$1,879.20

References:

1. Calabrese, D. Baldinger, S. Dose-Optimization Intervention Yields Significant Drug Cost Savings. JMCP 2002, vol 8 (2): 146-151.
2. Dose Optimization Program. BlueCross BlueShield Wellmark website. Accessed on 9.23.09 at: <http://www.wellmark.com>.