



Case Study: >>Elaine E.

Medication Compliance Monitoring and Reporting

PageMinder initiated a trial program in which a small number of participants were given an alert device with feedback capabilities. This device has several advantages over a pager—including not being subject to reception difficulties associated with pagers in certain locations.



Elaine E. is a 56-year old woman whose diagnoses include heart transplant, renal insufficiency, blood clot in her left atrium and hypertension. Four different physicians prescribe her 18 medications and 8 supplements. She takes meds seven times daily with a different combination of drugs each time. Additionally, she takes one medication weekly and another twice weekly. It is very important that the medications be taken timely (within fifteen minutes of the correct time) as some medications are designed to work in combination with or to counteract side effects of other medications. Her husband is very supportive and helps Elaine with her schedule, but he has serious health problems himself and they both were under considerable stress.

Intervention: PageMinder provided Elaine with a prototype reminder alert device programmed to alert with a description on a screen of the proper action to be taken at the time. The device continues to alert until pressing a button silences it. After a two-minute delay, the device alerts again so a different button may be pressed to indicate that compliance has been completed.

The device records when the compliance button is pressed and that information is downloaded automatically by modem every night. The results are compiled into a Compliance Report that may be viewed by authorized parties through a web-based interface. Events of non-compliance can be identified daily through an automatic e-mail notification program.

Medication List: The regimen was compiled from the medication vials present during a home visit. This approach includes medications from all prescribers, from all pharmacies, samples and also includes over-the-counter drugs, supplements and natural remedies. The full list of all medications Elaine takes is attached.

Reminder Schedule: Elaine receives a reminder at the prescribed time that lists the specific medications she is to take. Attached is her reminder list showing the content of each reminder and the amount of time within which the medication should be taken to be considered in compliance.

Compliance Report: Reports on compliance can be viewed for whatever time period is desired, and can look at compliance for specific medications. The attached report is Elaine's Month-to-Date compliance for March 1-23. It shows that all doses but one were taken within fifteen minutes of the time prescribed. Further reports show that the one non-compliant dose was actually taken, but outside the fifteen-minute time target.



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Medication List

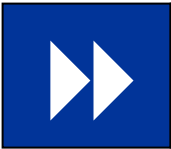
Drug	Dosage	Interval
<u>Actonel</u>	35 mg	1 x daily
<u>Beconase</u>	25 mg	3 x daily
<u>Benicar</u>	40 mg	1 x daily
<u>Burmetanide</u>	1 mg	2 x daily
<u>Calcium/Vit D</u>	500 mg	2 x daily
<u>Cardura</u>	2 mg	1 x daily
<u>Cellcept</u>	500 mg	2 x daily
<u>Clarinox</u>	5 mg	1 x daily
<u>Coumadin</u>	3 mg	1 x daily
<u>Epogen</u>	1 ml	1 x daily
<u>Ferrous Sulfate</u>	325 mg	3 x daily
<u>Hydralazine</u>	100 mg	4 x daily
<u>Isosorb</u>	60 mg	1 x daily
<u>Multivitamin</u>		1 x daily
<u>Neoral</u>	25 mg	2 x daily
<u>Nystatin</u>	100000 ml	4 x daily
<u>Omega 3 fish oil</u>		2 x daily
<u>Pravachol</u>	40 mg	1 x daily
<u>Prednisone</u>	5 mg	1 x daily
<u>Synthroid</u>	75	1 x daily
<u>Vitamin B1</u>	250 mg	1 x daily
<u>Vitamin B6</u>	100 mg	1 x daily
<u>Vitamin C</u>	500 mg	1 x daily
<u>Vitamin E</u>	400	1 x daily
<u>Zantac</u>	150 mg	1 x daily
<u>Zinc</u>	50 mg	1 x daily



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Alarm Schedule

Alarm Type & Time	Text	Medication Taking	Medication Required Within (min)
Daily 6:00 AM	Take your Hydralazine.	Hydralazine	15
Daily 8:00 AM	Take Neoral, Cellcept, synthroid, nystatin, beconase, isosorb, and bumetanide.	Beconase & Bumetanide & Cellcept & Isosorb & Neoral & Nystatin & Synthroid	15
Daily 9:00 AM	Take prednisone, iron, Vit. B1, Fish Oil, Vit. C, Multivitamin, and Calcium/Vit D.	Calcium/Vit D & Ferrous Sulfate & Multivitamin & Omega 3 fish oil & Prednisone & Vitamin B1 & Vitamin C	15
Daily 1:00 PM	Take Iron, Vit. E, Calcium/Vit D, Nystatin, and Hydralazine.	Calcium/Vit D & Ferrous Sulfate & Hydralazine & Nystatin & Vitamin E	15
Daily 6:00 PM	Take Iron, Zinc, Fish Oil, Vit. B6, Calcium/Vit D, Nystatin, Hydralazine, and Coumadin.	Calcium/Vit D & Coumadin & Ferrous Sulfate & Hydralazine & Nystatin & Omega 3 fish oil & Vitamin B6 & Zinc	15
Daily 9:00 PM	Take Neoral, Cellcept, Pravachol, Zantac, Beconase, Cardura, and Clarinex.	Beconase & Cardura & Cellcept & Clarinex & Neoral & Pravachol & Zantac	15
Daily 10:00 PM	Take Nystatin, Hydralazine, and Benicar.	Benicar & Hydralazine & Nystatin	15
Scheduled 03-23-06 9:30 PM	Take your Epogen	Epogen	15
Scheduled 03-26-06 9:30 PM	Take your Epogen	Epogen	15
Scheduled 03-27-06 7:00 AM	Take your Actonel	Actonel	15



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Graphical Compliance Report

