# SIMpill

#### Real-time Compliance Management

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### Compliance Is a Big Issue



- Between 30 and 70 percent of patients do not take their medication as prescribed
- This costs:
  - Preventable hospitalisation
  - Increased costs of medication by increased prescription costs
  - Resistance to anti-microbials



# How Is Compliance Measured?



- Patient self reports
- Health professional assessment
- Pill counts
- Treatment outcome measures
- Biologic and other markers
- MEMS caps



Interventions to Improve Compliance



- Patient information systems (leaflets etc.)
- DOT and DOTS (also a measure of compliance)
- Simplifying drug regimens
- Packaging with memory prompts
- Reminders

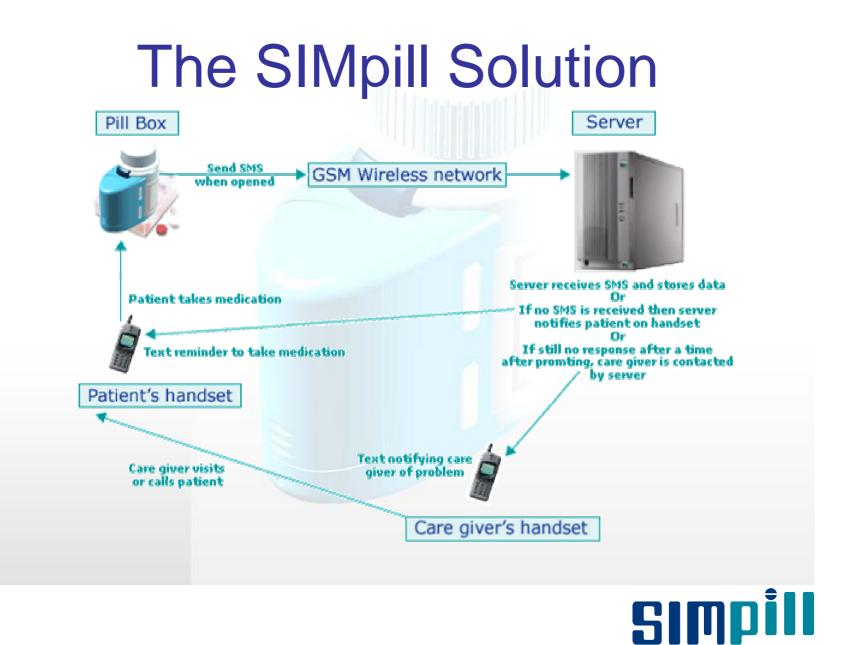


Interventions to Improve Compliance (cont)



- Patient support groups
- Rewards of various types DOTS food parcels, loyalty programmes etc.
- Treatment buddy systems
- Community based caregivers





# SIMpill Solution (cont)



- Real time monitoring
- Individual and targeted response to non-compliance
- No response or intervention when compliance is not a problem
- Designed to be minimal effort from the patients perspective.



### SIMpill Solution (cont)

- Battery life and replacement
- No reception?
- What if ....? A self regulating

system

• What about those who try to deceive the system?



real time compliance management

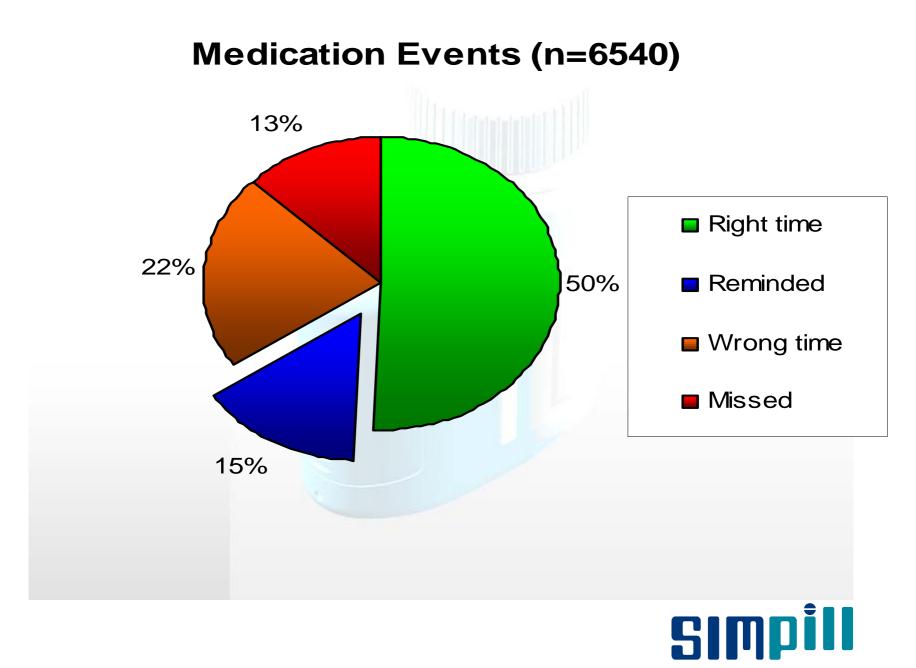
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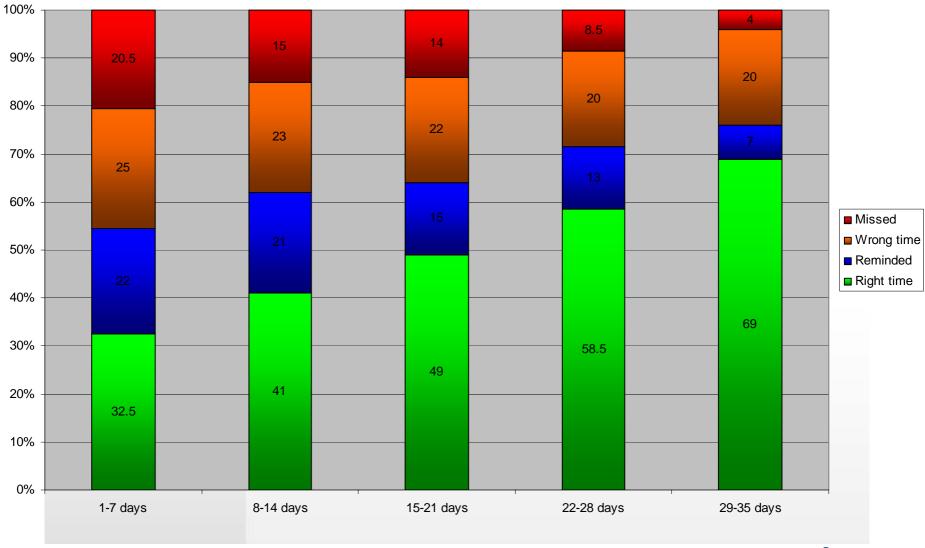
# Pilot Project



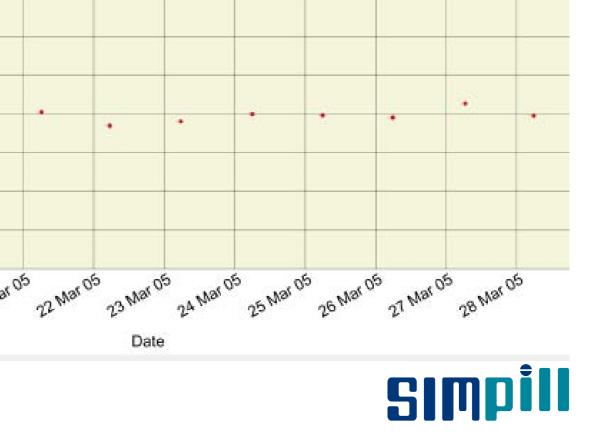
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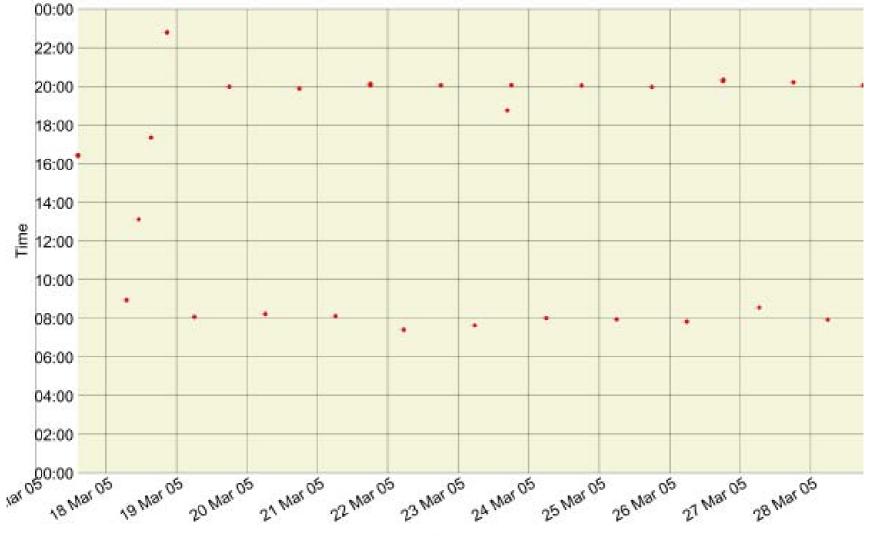
- 90 patients with various diagnoses
- 84 days duration at time of collating this data (ongoing project)
- Average of 1.91 medication events per patient per day (1, 2 or 3 times daily medication)





### SIMpill





# Where To From Here?

- Complete pilots
- Various developments for inhaled medicines
- Use of GPRS for incoming data
- Current availability is, technically, world-wide (except the USA)
- USA from August 2005





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