Future value and challenges of treatment with e-connected medicine

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FDA set up digital health innovation action plan

https://www.fda.gov/medicaldevices/digitalhealth/
Adherence in prophylaxis use in long term care

Adherence to Drugs that Prevent CV events: Meta-analysis on 376,162 Patients

- 9% of CV events are caused by poor compliance
- Improved compliance would significantly reduce mortality in CV patients (up to 35% RRR)
- Stroke prevention in AF:
  - 20% improvement compliance → 0.7% reduction,
  - Improved persistence > 18 month → 0.9% reduction

1) Sayed H. Naderi et al., The American Journal of Medicine, 2) Rajiv Chowdhury et al., EUR Heart Journal, 2013, 3) Michael Ho et al; Circulation, 2009

Pharmaceutical eco-system for patient disease management

Proteus
patients can easily monitor their medication-taking patterns on their mobile device.
Physician have access to objective data that enables them to initiate, titrate, eliminate medication.
http://www.proteus.com/discover

Stick 2it program
Using data from participant questionnaires, the algorithm created a customized messaging and reminder program for each participant.
http://www.memotext.com

Reward mechanism
Medical cost savings consisting of reductions in outpatient and inpatient services, monitoring, disease management, and medication costs were estimated to be $850-980 per patient per year (5-11% reduction in diabetes and CVD complications).
Kim YA et al. Value in Health 2015.
Continuous Improvement in market harmonizing HCPs and patients is critical

Technology Development
- Access to medicine is priority
- Technology binds to unmet needs
- Capability of start up company for manufacturing

Data Generation
- Needs flexible regulation for clinical data collection
- Evidence should be rewarded by HTA or pricing & reimbursement

Continuous Improvement
- Flexible approval process to maximize potential of technology
- Feedback from HCPs and patients critical