RxID

Increasing Medication Safety with Image Recognition using Deep Learning

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Top 5
Causes of Death
USA 2017

Heart Disease
Cancer
Medical/Medication Errors
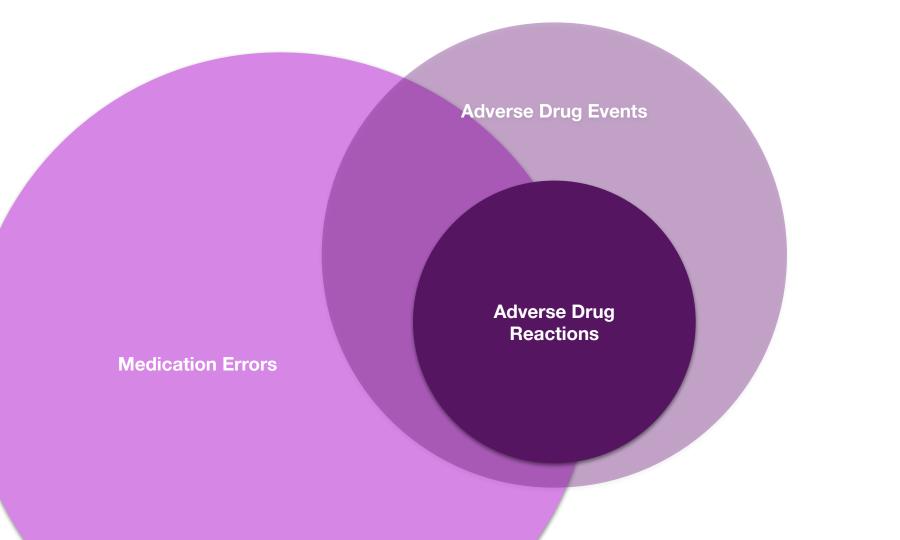Respiratory
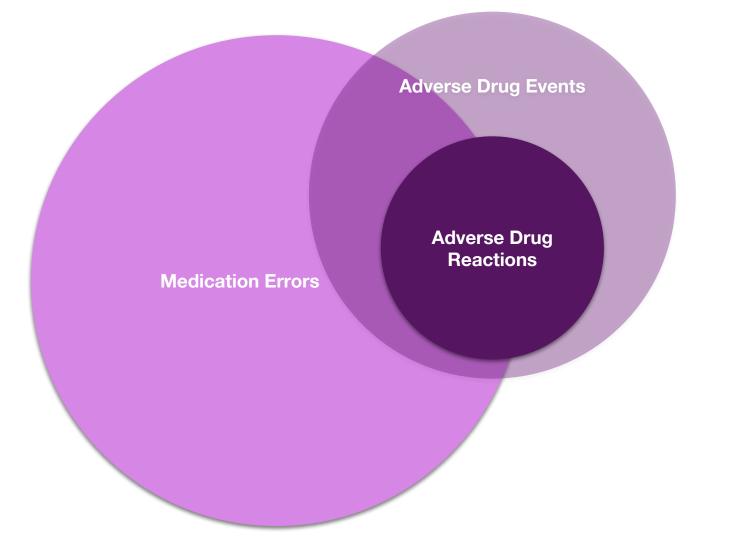Stroke

Diagnosis

Treatment

Prevention

Other

Medical errors occur in any clinical setting, by any individual, and during any stage of a patient's care

Adverse Drug Event | Any preventable event that may cause or lead to inappropriate medication use or patient harm

Risk Groups

Multiple Chronic Conditions
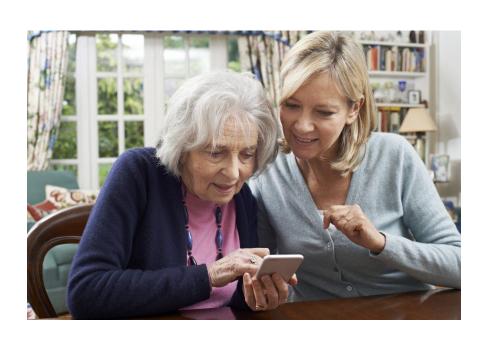
103M

Aged 65+

52M

will double by 2060

RxID Solutions: Dispensing (camera stack integration)

Retail and automated pharmacy dispensing validation
- Pharmacist fatigue

RxID Solutions: Patient/Caregiver (smartphone app)

- Visual impairment
- Drug change
- Recalls
- Mixed meds

RxID Solutions: Emergency (smartphone app)

Quick identification during an accidental or intentional overdose

How does RxID...

Improve Health Outcomes

Reduce ADEs
Empower patients/caregivers
Accelerate intervention

Save Money

Save Pharmacists time
Reduce hospitalizations
Lower risk of litigation

RxID Technical Details

Medication image data from the NIH; Original dataset includes over 4000 different medications

Deep learning on a convolutional Neural Network

Trained on 749 images

Focus on Accuracy

Does not require an API call; safe, private, accessible

Limitations

Oral tablets and capsules

FDA approved NDC

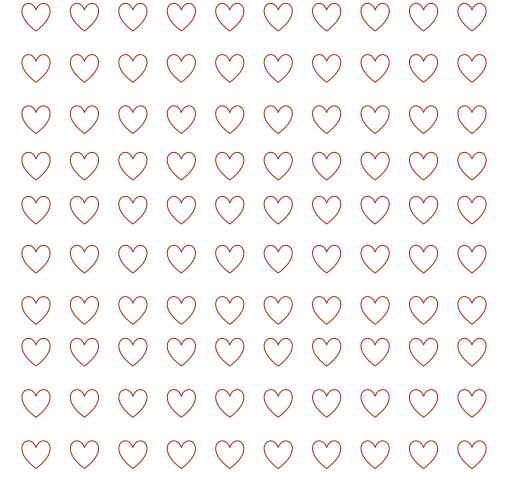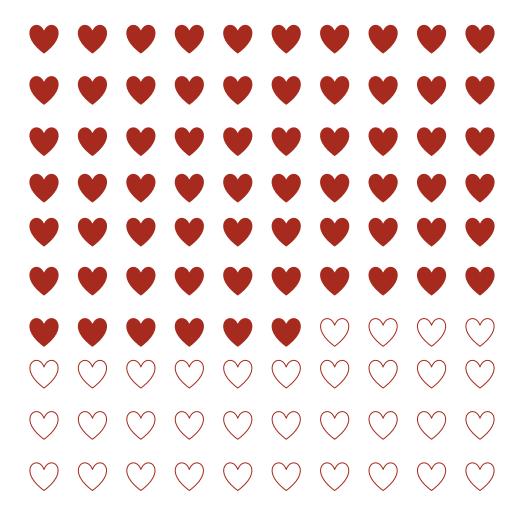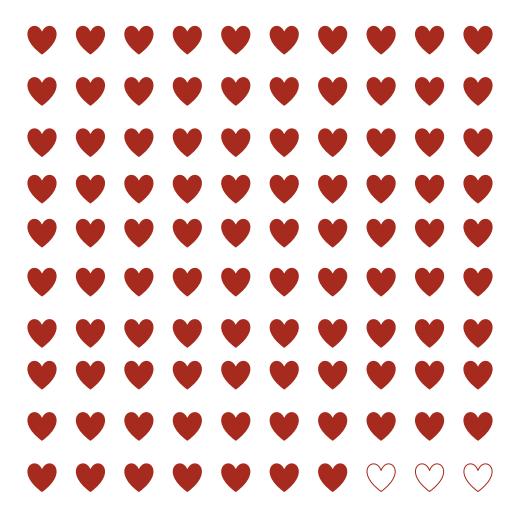~~Lot Number~~

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15 NDCs in v1

RxID15

Results:

_____

. . .

RxID15
Results:

66%
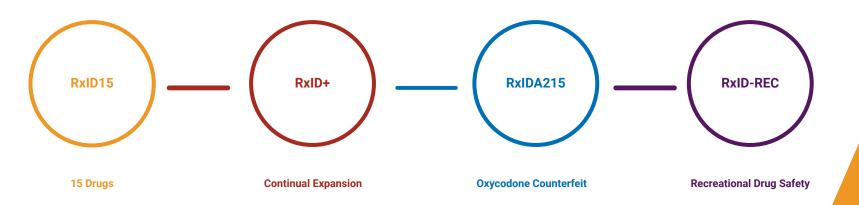
RxID15
Goal

97%

Bigger, Better, Faster, More

Transfer Learning | Larger Datasets | Cloud Compute

RxID15

RxID+

RxIDA215

RxID-REC

15 Drugs

Continual Expansion

Oxycodone Counterfeit

Recreational Drug Safety

Thank You

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Acknowledgments

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