digitalhealth REWIRED LONDON 14-15 MARCH 2023

Headline Sponsors:

SystemC& Graphnet Care Alliance

tpp

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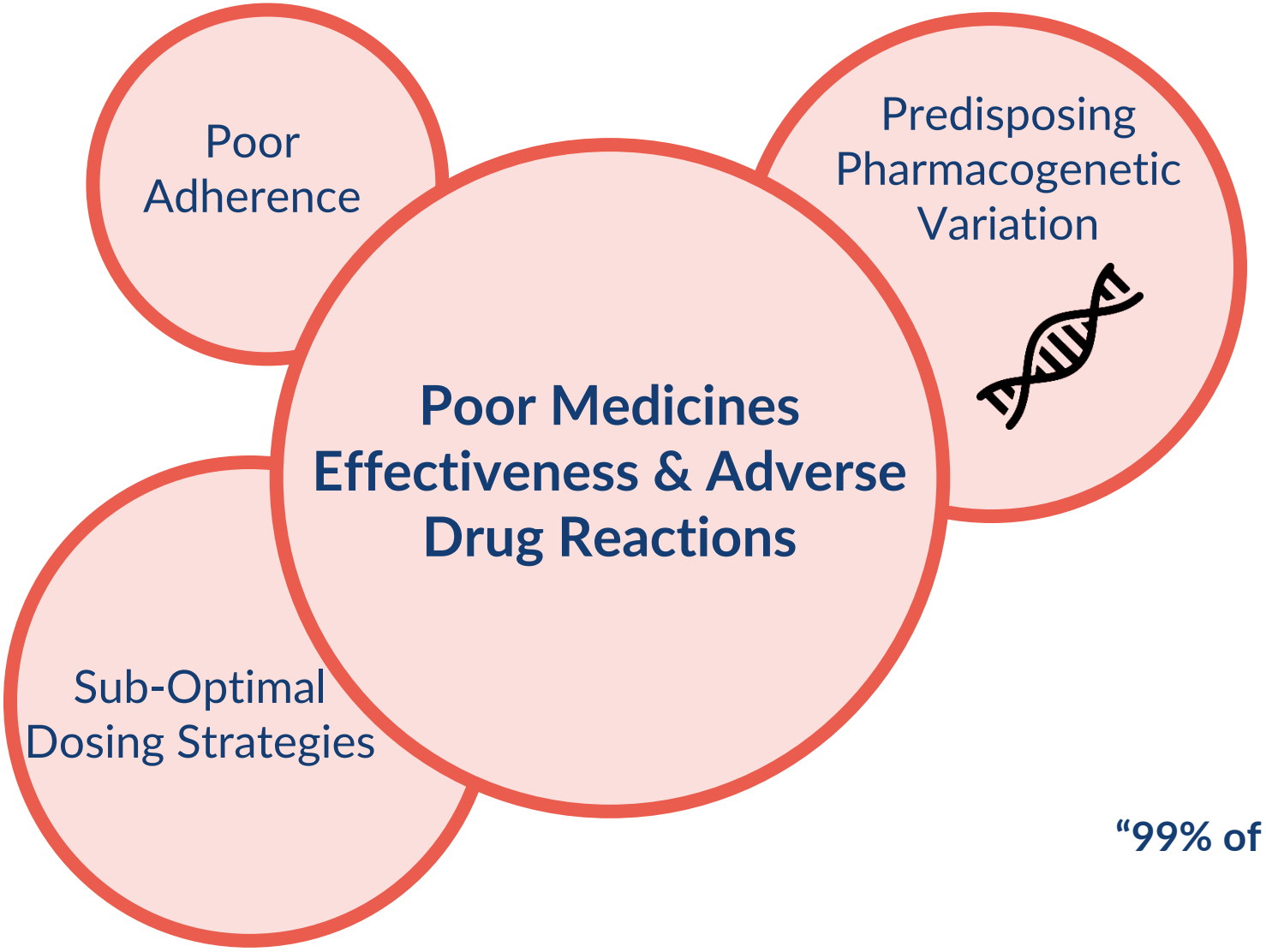
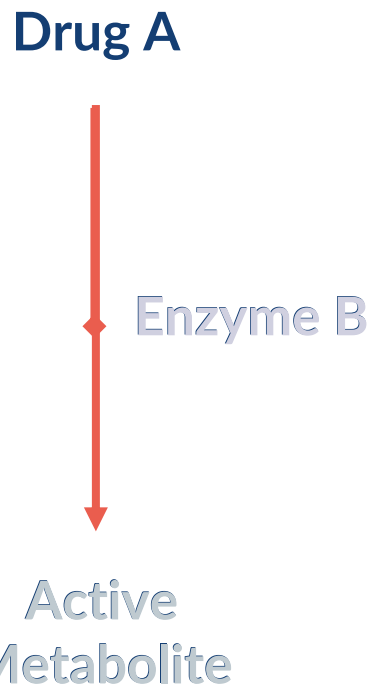
NHS North West Genomic Medicine Service Alliance

Common Genetic Variation is Associated with Poor Medicines Effectiveness and Adverse Drug Reactions





"99% of Individuals Carry Pharmacogenetic Variation"

Personalising Healthcare Through Pharmacogenetics

Results Available

Presentation

Prescription

Presentation

Prescription

Presentation

Prescription

Lifelong Patient-held data?

Pre-emptive Panel Testing

Age 55
Requires statin
PGx reduces risk of myopathy

Age 60
Back pain
PGx helps selection of analgesia

Age 68
ACS
Pgx avoids risk of ineffective antiplatelet and future cardiac events

Clinical Decision Support

Genetic Variation

CYP2C19

c.636G>A p.(W212X)
c.1297C>T p.(R433W)

1.Genotype

***3,*5**

2.Haplotype

CYP2C19 (*3/*5)

3.Diplotype

CYP2C19 PM

4.Phenotype

Clopidogrel

Prescribe Alternative Antiplatelet

5.Guidance

Personalised Prescribing across Integrated Care Systems

Genomic Lab

Genetic Variation (Assay A, B or C)

Phenotype

Prescribing Advice

Prescribing Advice

Prescribing Advice

GP

User Research

Important to have PGx results fully integrated into the Electronic Health Records

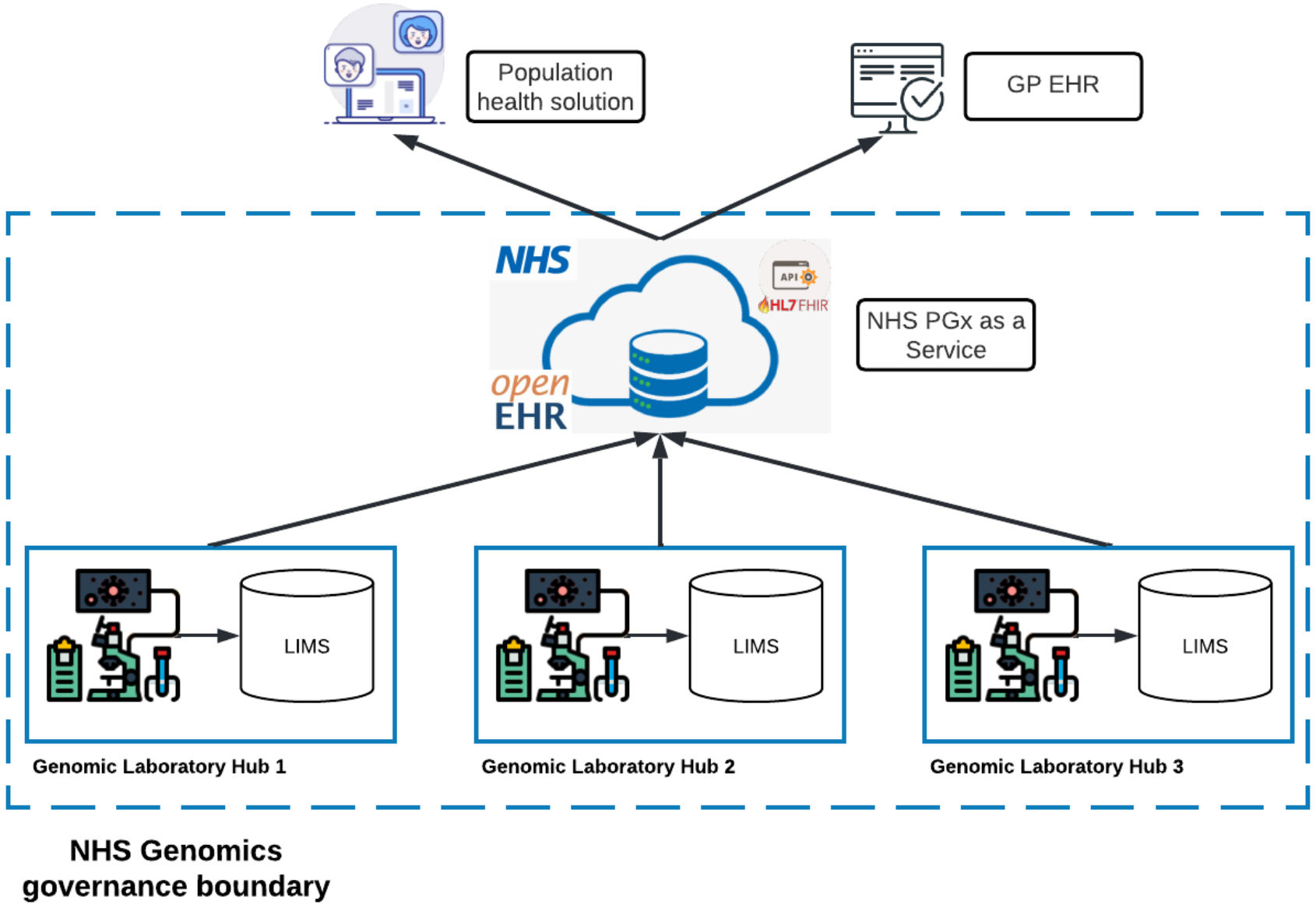
Pop-up or review list?
Both!

Recommendations must be specific – no time to review multiple options

PGx process needs to be very clear and understandable to all

Lack of familiarity with PGx research and potential – a need for education

Pharmacogenomics as a Service



Thank you for listening

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www.nw-gmsa.nhs.uk/education-and-research/et-resources/pharmacogenomics