InRAD: Driving International Collaboration for Real-World Evidence in Alzheimer's Disease

International Registry for Alzheimer's disease and other Dementias (InRAD)

Robert Perneczky and Rob Hyde

www.inradnetwork.org

Disclosures

- Robert Perneczky has received research grants from Roche, Astra Zeneca, Bayer, Takeda and GE. He has received honoraria from Roche, Eisai, Biogen and Janssen-Cilag. RP provided consultancy services for Roche, Eisai, Biogen, Janssen-Cilag, Lilly, Astrazeneca, Grifols, Novo Nordisk, Abbvie and GSK. RP is a founder Board Member of InRAD.
- Rob Hyde is a Real-World Evidence strategic consultant for InRAD, Adviser to More Europa Project and PROMS initiative with no other disclosures.
- **InRAD is coordinated by the independent International Registry for Alzheimer's Disease and Other Dementias Foundation, a health-related not-for-profit entity incorporated in the Netherlands**
- InRAD has received financial contributions from the pharmaceutical industry, including Eli Lilly, Eisai, Roche, Schwabe Group, Novo Nordisk, Bristol Myers Squibb, Biogen, Johnson & Johnson
- Others partners include: Alzheimer's Association Network, Icometrix NV, Neurophet, The Neurodegeneration Initiative UK
- InRAD does not endorse any companies or products
- InRAD is operated independently from these companies

https://www.inradnetwork.org/pharma-funding

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The unmet needs in AD real-world data

- New AD therapies: uncertainties post-authorisation
- Fragmented real-world data sources, safety not collected routinely
  - Many at the “centre level”
  - Electronic Medical Records (EMRs) are not designed or standardised for research
  - Data from existing cohorts do not follow a common data model fit for treatment follow up
    - To include outcomes – benefits and risks
- Need for sustainable, long-term, quality follow-up
- Regulator advocate for **Disease Registries** (not drug-specific registries)
- No international disease registries exists

AD: Alzheimer’s Disease

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Agenda: Why we need a unified approach

- To unify clinicians, researchers, regulators, policymakers, industry – fit for several purposes including safety

The International Registry for Alzheimer's Disease and Other Dementias (InRAD)

- International Consensus on Minimum Data Set (MDS) and Extended Data Set (EDS)
- Clinical Needs for Real-World Evidence
- InRAD Disease Registry

- Call for a Multi-stakeholder, Tripartite Collaboration

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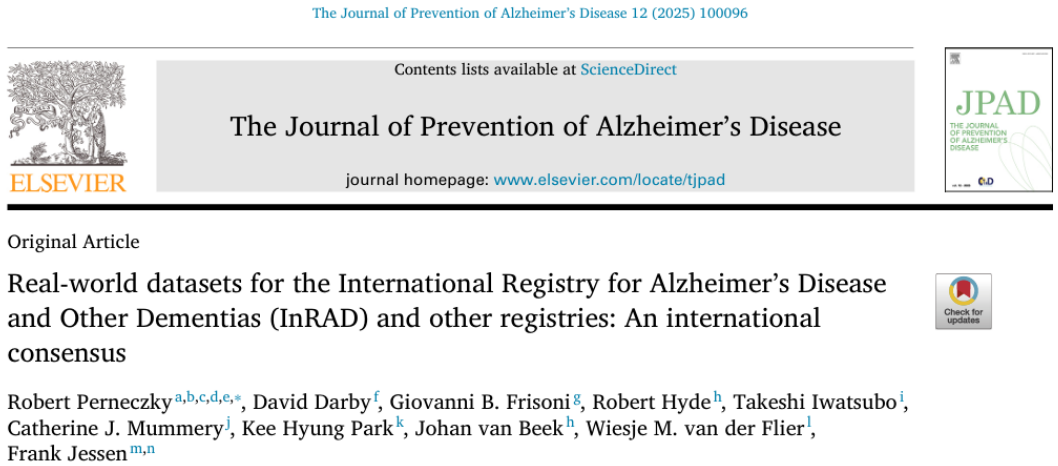
InRAD Minimum Data Set published: Basis for international registry platform

- International Steering Committee
- Modified Delphi Multistakeholder Consultation to define Minimum Data Set (MDS)
  - Clinicians & academics (Europe: 50/72)
  - Patient representatives
  - Pharmaceutical industry
  - Other registries
- Consensus agreement & Publication of Minimum and Extended Data Sets
- Minimum Data Set includes
  - Diagnosis pathway including biomarkers
  - Clinical Staging, from asymptomatic to severe (6 stages)
  - MOCA/MMSE
  - Treatments
  - Medical Conditions/Medical Events (Safety)



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Original Article

Real-world datasets for the International Registry for Alzheimer's Disease and Other Dementias (InRAD) and other registries: An international consensus

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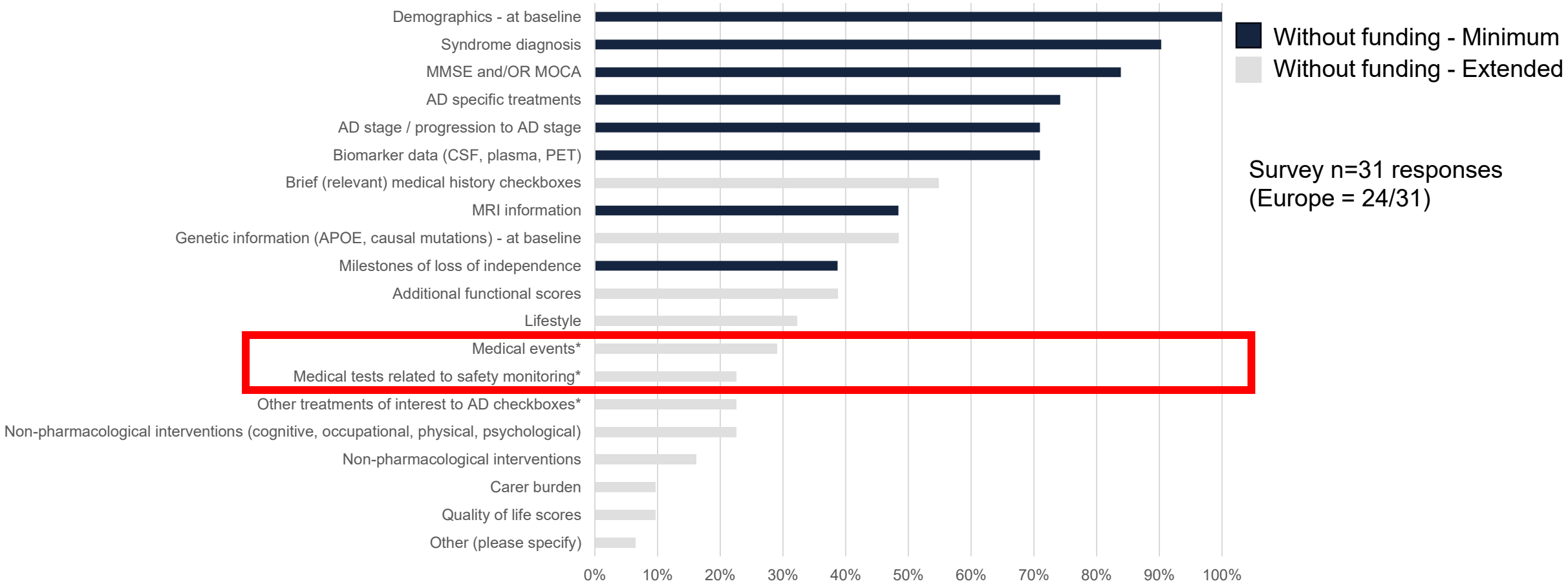
Perneczky et al. Real-world datasets for the International Registry for Alzheimer's Disease and Other Dementias (InRAD) and other registries: An international consensus, The Journal of Prevention of Alzheimer's Disease 2025 https://doi.org/10.1016/j.tjpad.2025.100096

InRAD Data for Care

Clinicians are willing to collect InRAD's Minimum Data Set WITHOUT funding



Question: What type of longitudinal real-world data for AD patients could you realistically enter into a practice-based observational disease registry such as InRAD (with at least 1 entry each year per patient) within your current capacity and resources? (i.e. no additional funding) - select all that apply

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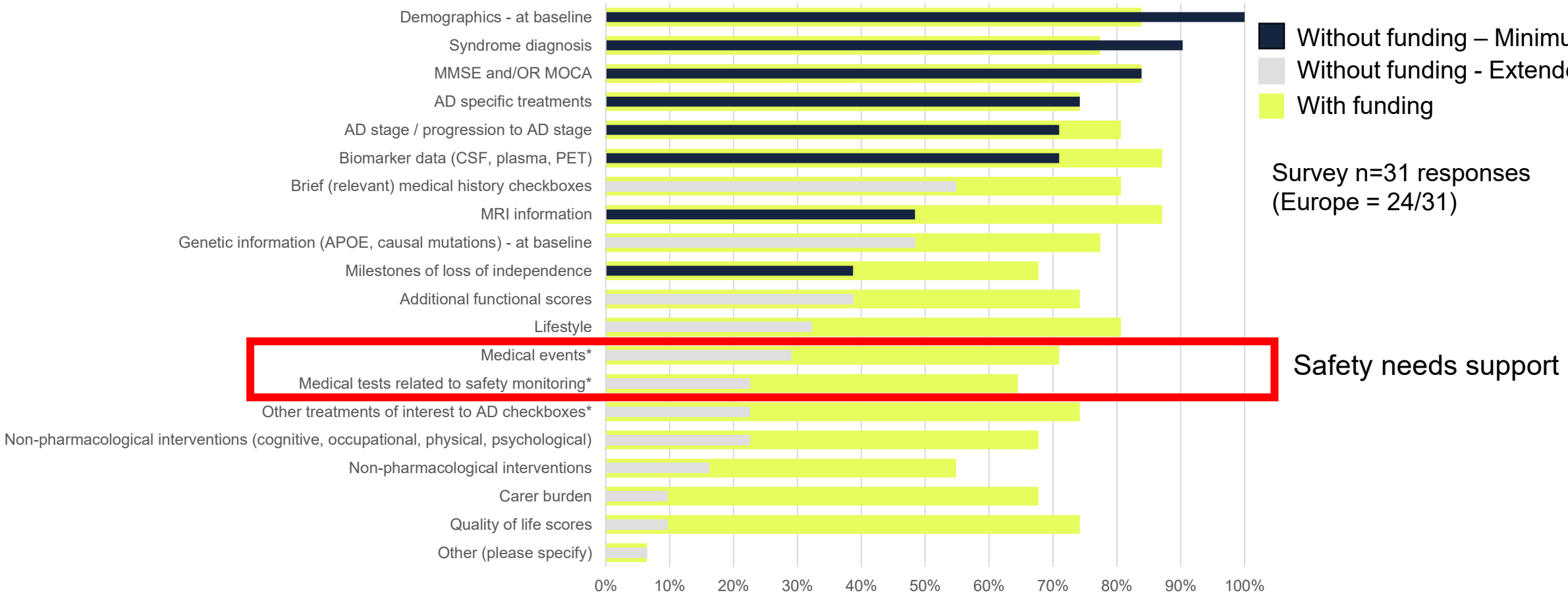
Clinicians are willing to collect a broader set of data WITH funding



Question: What type of longitudinal real world data for AD patients could you realistically enter into a practice-based observational disease registry such as InRAD (with at least 1 entry each year per patient) if additional resource for data entry at a centre level was available - select all that apply

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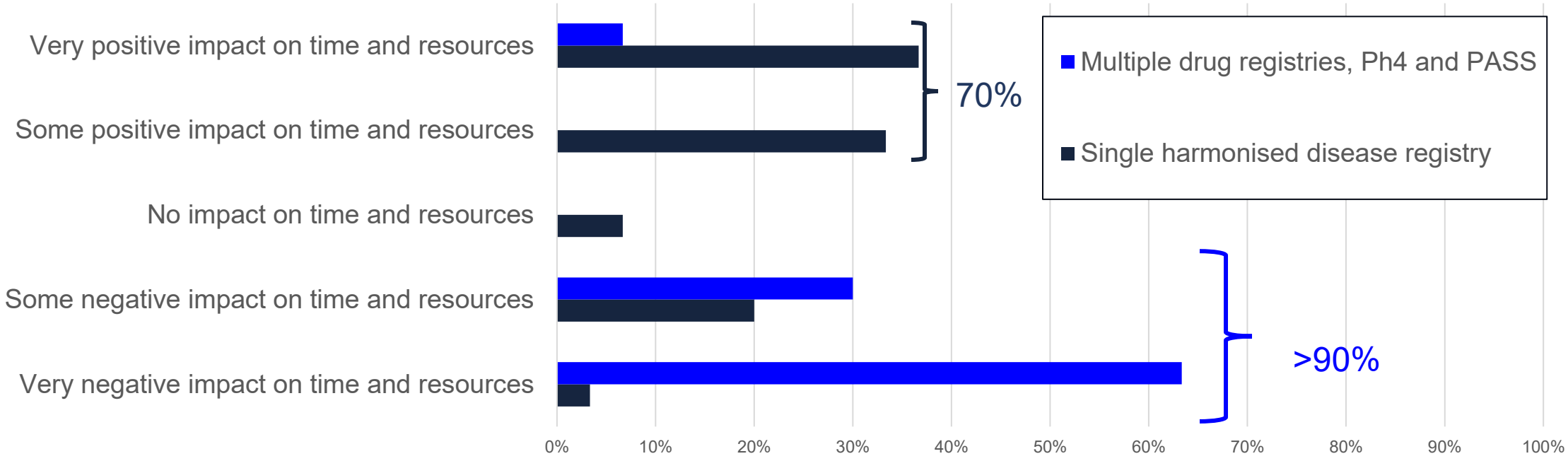
Multiple drug studies/registries: negative impact >90%
Single harmonised disease registry: positive impact 70%

Survey n=31 responses
(Europe = 24/31)



What impact would it have on your clinical services (time/resources) if each pharmaceutical company collects real world data for each drug for post-authorisation safety and effectiveness studies (regulatory), HTA and clinical insights using different data collection platforms / registries and protocols?

What impact would it have on your clinical services (time/resources) if real world data for AD patients was collected in one disease registry (or with interoperability if data could be shared from your local platform into a central registry)?

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InRAD: An international clinical practice-based disease registry (treated with any DMT/ untreated) in AD

Meaningful data

Sustainable platform

Collaborative science

Free-to-access cloud-based data platform and collaboration infrastructure

Contributing doctors' centres own their data (Data Controller)

Collaboration within and outside the network

InRAD (Data Processor) coordinates international research and studies

Participation in scientific agenda (e.g. own research; multicentre or national research studies)

Data Quality workstream to support use regulatory & HTA use cases

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InRAD 1.0 (MVP) Global deployment readiness

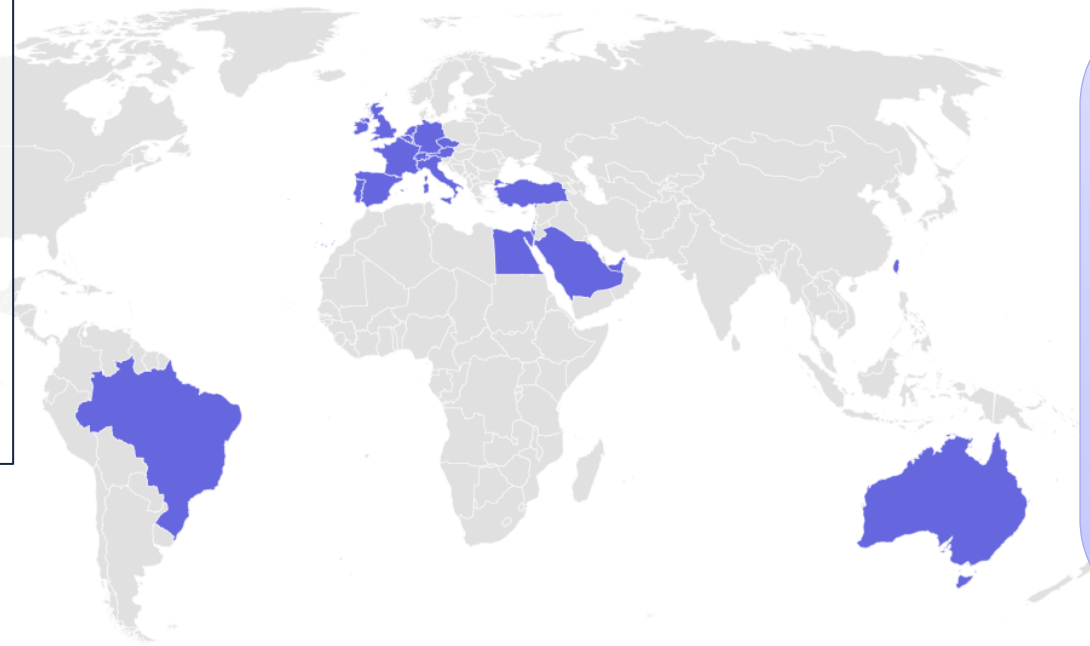
PILOT centres

Wave 1 deployment January 2026

21 countries (11 EU, UK, Switzerland)
29 PIs

Ready for expansion

InRAD to be used in EU IHI initiative



Governance pack

- Observational Protocol
- Informed Consent Form
- Roles and Responsibilities
- Participation Agreement
- Data Processing Agreement

Multi-country feasibility confirmed
Ready for expansion

MVP: Minimum Viable Product
https://clinicaltrials.gov/study/NCT07213700

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- Patients
- Preferences
- Users
- Export
- Sync Last sync at 22:49

Local ID:	AD-GB-987-00002
Registry Consent:	YES
Age:	69 years
Gender:	Female
Education:	Upper secondary education
Linguistic:	Bilingual
Dominant Hand:	Ambidextrous

Patient Profile

Height: 160 cm
Weight/BMI: 103 kg / 40.2 (01/05/2024)
105 kg / 41.0 (01/09/2021)
105 kg / 41.0 (01/07/2021)

Visits

Last visit: 01/05/2024

- Identification
- Demographics & Lifestyle
- Medical History
- Flexifields
- Notes

Medical Conditions & Events

02/11/2021: ARIA-E
02/03/2021: COVID-19
02/09/2010: Mood depressions

Treatments

01/08/2021: Lecanemab
02/12/2020: donepezil
02/12/2015: Salbutamol

Medical Tests

05/03/2022: MRI
03/02/2022: MRI
16/12/2021: MRI

Diagnosis

Status
- Confirmed Diagnosis (05/02/2021)
- Alzheimer's disease (Definite AD)

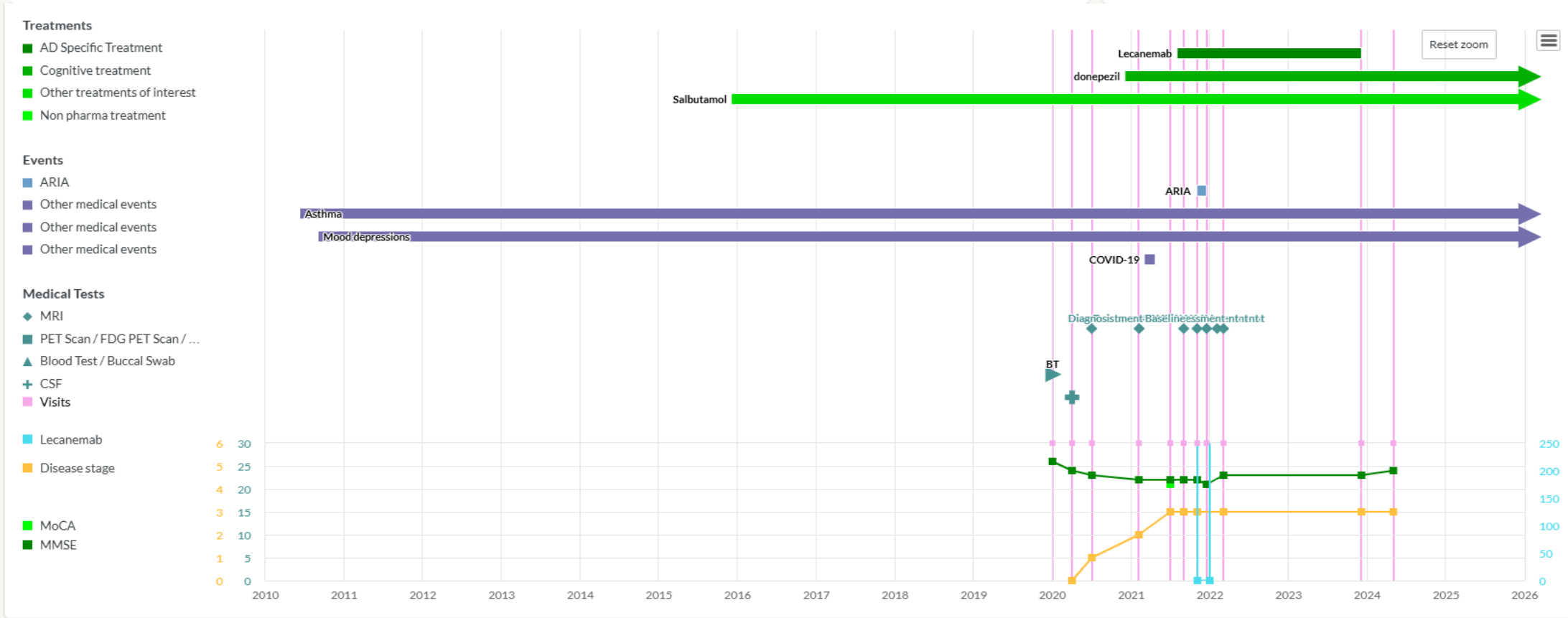
Stage at Diagnosis
- Stage 1 - Asymptomatic, biomarker evidence only

Predominant Symptom/Syndrome (first two years)
- Amnestic Syndrome (Typical Presentation of AD)

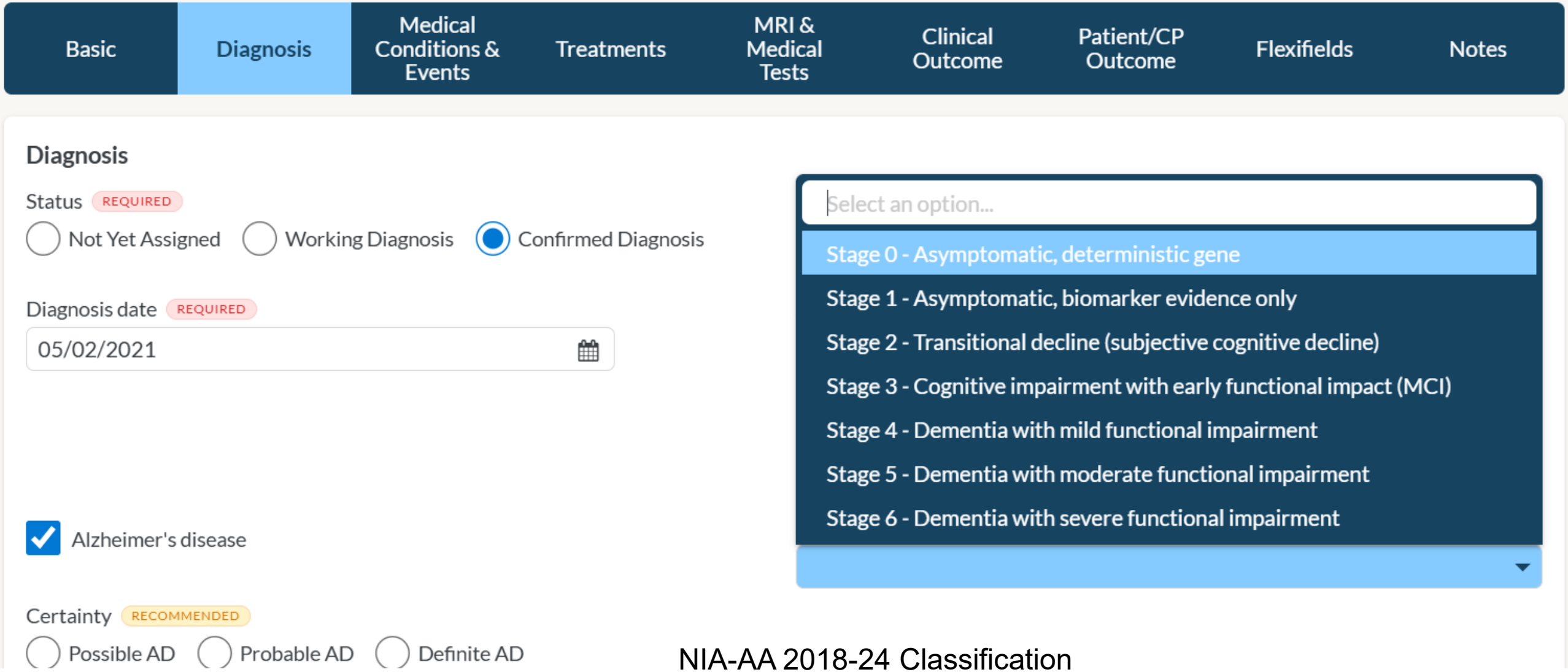
Duration symptoms at diagnosis
- 0 days

Disease Status & Milestone Events

Disease stage at last visit:	Stage 3 - Cognitive impairment with early functional impact (MCI)
Working status:	Employed (Part-time)
Driving status:	Actively Driving
Living status:	Own Home (owned or rented) Lives with spouse or partner (without professional help)

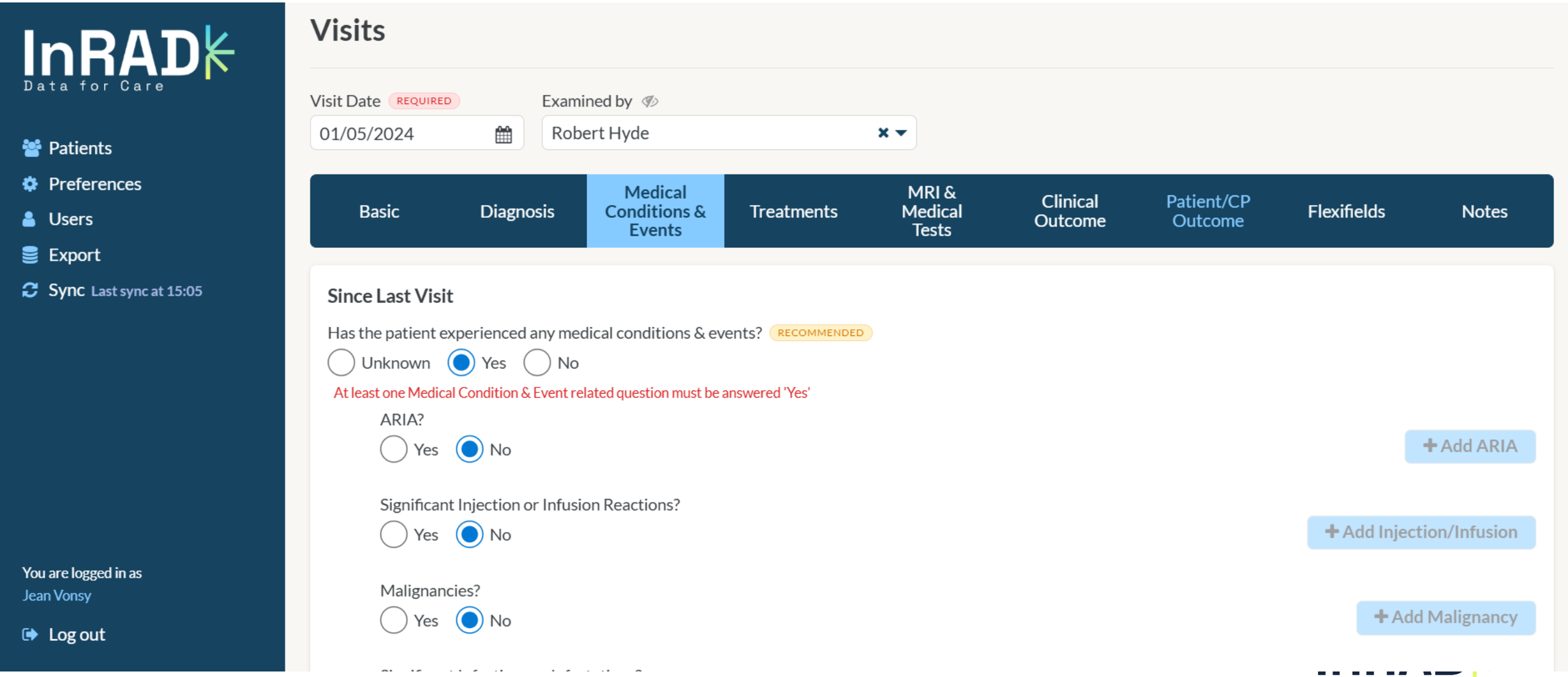


Early asymptomatic stages can be captured

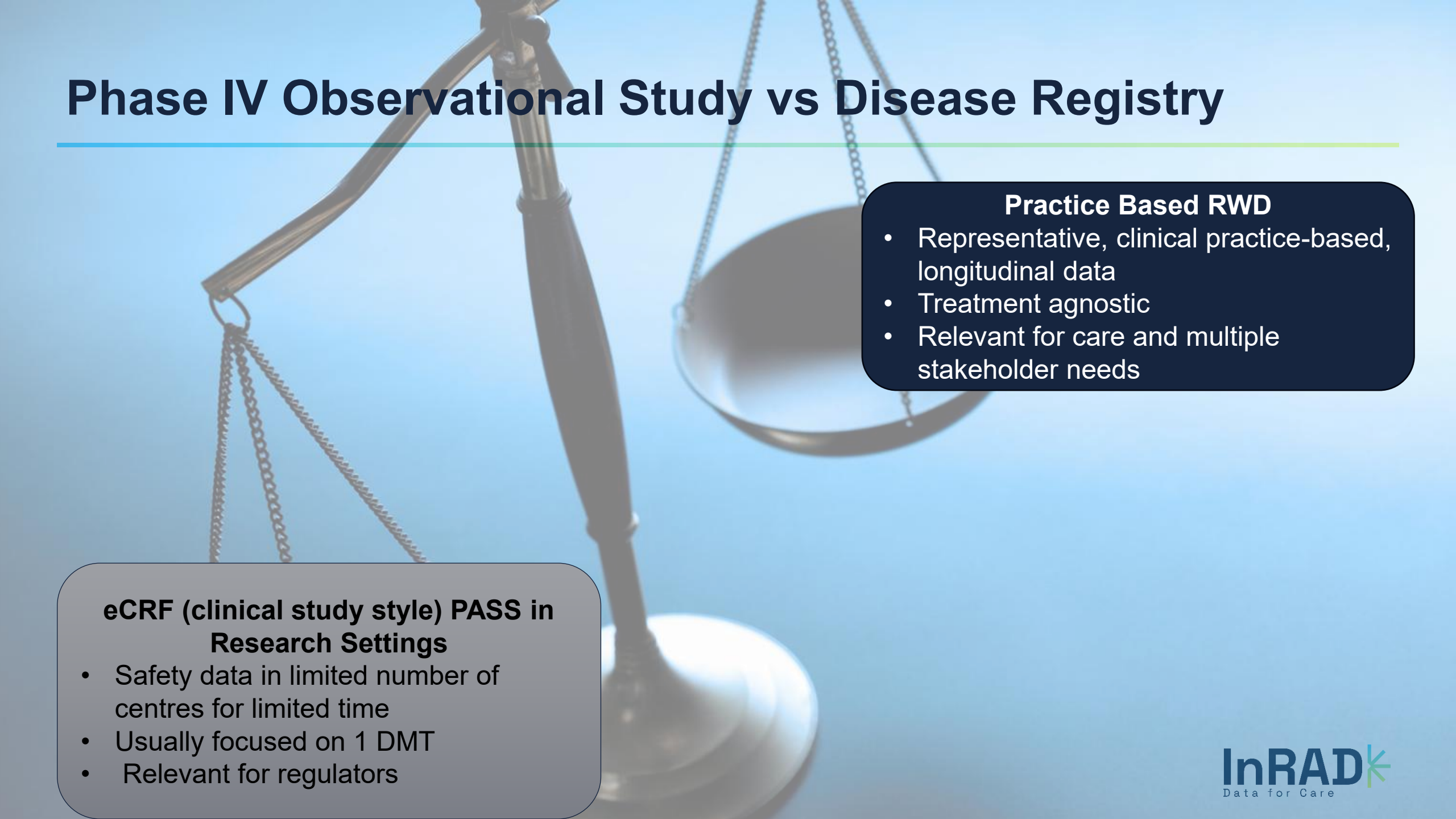


NIA-AA 2018-24 Classification

“Denominator” question for medical events of interest (ARIA/Infusion reactions)



Phase IV Observational Study vs Disease Registry



Practice Based RWD

- Representative, clinical practice-based, longitudinal data
- Treatment agnostic
- Relevant for care and multiple stakeholder needs

eCRF (clinical study style) PASS in Research Settings

- Safety data in limited number of centres for limited time
- Usually focused on 1 DMT
- Relevant for regulators

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Data quality scale-up for regulatory-ready studies

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Scientific Operations Director

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Epidemiologist (Amsterdam UMC)

Biostatistician (Amsterdam UMC)

Data Manager (Munich)

Clinical PM (UK)

CRO Partner

PASS Consultant

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Data Quality roadmap for InRAD

- InRAD 1.0 (MVP) launched, InRAD 2.0 in 2026
- Minimum & Extended Data Set, Data Model
- Next steps:
  - Training Materials for InRAD and to be used across efforts
  - InRAD Data Quality Roadmap - Working with Data Quality Framework to fit Practice-based Data Collection
  - Fitness-for-multiple use cases e.g. HTA/PASS/PAES
  - EMA qualification process to start
  - Standards for Data Sharing: Interoperability and Mapping to OMOP Common Data Model


EUROPEAN MEDICINES AGENCY
SCIENCE MEDICINES HEALTH

1 4 November 2024
2 EMA/503781/2024
3 Committee for Medicinal Products for Human Use (CHMP)

4 Data Quality Framework for EU medicines regulation:
5 application to Real-World Data

6 Draft

https://catalogues.ema.europa.eu/institution/1000000691

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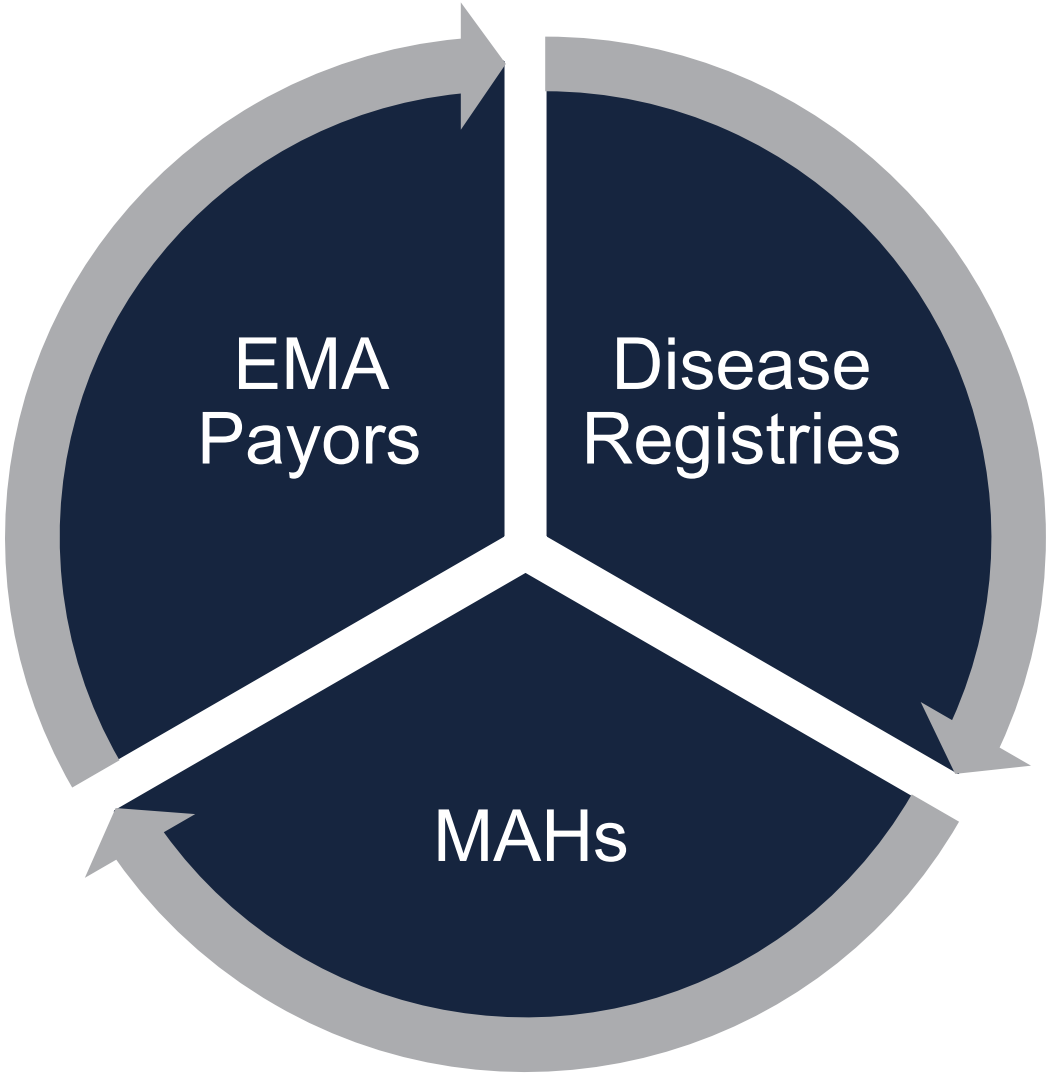
Call for Multistakeholder / Tripartite Collaboration to Set Standards for Sustainable Disease Registries



- Regulatory Use Case discussions can be very technical
- Need to avoid siloed discussions and get answers faster e.g. *practice-based audit trail*
- To save time and resources & ensure long-term sustainability for disease registries
- To benefit patients

- **<u>First topic: PASS/PAES Design Advisory Group</u>**

MAH: Marketing Authorisation Stakeholders

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A Pivotal Moment for a Unified & Sustainable Approach

- InRAD the **first international, not-for-profit, registry solution** in AD
  - Foundation to overcome fragmentation when EMRs are not designed for research
- Defined a **Minimum Data Set (MDS) and Extended Data Set (EDS)**, ensuring **standardised, high-quality data collection** across AD registries[1]
- Data dictionary and common data model provides a **blueprint for structured and harmonised data capture**
- **Data collection is about to start**
- **Joining an international disease registry like InRAD means making a bigger impact** than any single centre or single country could alone
- InRAD is open to **ALL** centres
- **Calling for Tripartite Collaboration between Regulators & Payors / Disease Registries / MAHs**

📌 InRAD **resources available** https://www.inradnetwork.org

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1. Perneczky et al. Real-world datasets for the International Registry for Alzheimer's Disease and Other Dementias (InRAD) and other registries: An international consensus, The Journal of Prevention of Alzheimer's Disease 2025 https://doi.org/10.1016/j.tjpad.2025.100096

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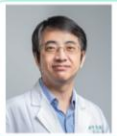

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Gates Ventures · Research Secure Data Environment Network · Dementias Platform UK · UKDTN Dementia Trials Network · LMU

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Interoperability: ABOARD

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MRI: icometrix · neurophet

Industry Forum

Eli Lilly, Eisai, Schwabe Group, BMS, Johnson & Johnson, Biogen, Roche, Novo Nordisk

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