

Multimedia Appendix 1. Definitions of outcome measures across synthesized reviews (to keep subjectivity to a low, the definitions in column 1 used in the current paper have been derived from the review definitions in column 2; column 3 provides references to the original definitions).

| Definition | Wording used in the original reviews to derive definitions | Source |
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| Usefulness/effectiveness of record access (definition from Giardina) | Effectiveness of record access (e.g. physical health outcomes, psychosocial health outcomes, health behaviours and adherence outcomes) | Giardina |
| | Usability and usefulness, Interoperability, Usability, Adoption rate, Documentation practice, Changes to workflow and productivity (with usefulness of record access as a key outcome measure), Amount of time with patients, Quality of clinician-patient interactions, Quality and Safety of Care, Medication Error prevention | Nyugen |
| | Time saving (e.g. avoiding an in-person clinic visit) | de Lusignan |
| | Adherence (e.g. adherence to medical advice) | Goldzweig |
| | Various (e.g. effect of RA use) | Poissant |
| Information Quality (definition from Nyugen) | Improved Information Quality, Accuracy, Completeness of data, Timely and better access to up-to-date patient information, Availability, Improved legibility, Issues in dealing with data overload and overflow | Nyugen |
| Self-efficacy (patient empowerment) (definition combined through source studies) | Patient empowerment | Amante |
| | Patient empowerment (e.g. "patients being empowered to communicate more effectively with clinicians") | de Lusignan |
| Patient satisfaction (definition from Giardina) | Patient satisfaction (Satisfaction questionnaire), Clinical (care) satisfaction | Giardina |
| | User satisfaction | Nyugen |

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| | Attitudes (based on "health outcomes, health status, satisfaction, or adherence") | Goldzweig |
| | Level of certainty, mood states, satisfaction with care | Ko |
| Patient views (definition combined through source study) | Patient views | Giardina |
| Patient engagement (definition combined through source studies) | Medication modifications, Usage (e.g. PAEHR system logins) | Giardina |
| | Patient engagement (e.g. via attendance to health checks) | Giardina, Amante, Goldzweig |
| Clinical outcome (definition combined through source studies) | Glycemic control, Change in GHb, Blood pressure control | Giardina |
| | Diabetes Recognition Program (DRP) scores | Amante |
| | health outcomes, health status, satisfaction, or adherence | Goldzweig |
| | HbA1c | Ko |
| Work load (Definition from de Lusignan) | Workload (e.g. changes to workload and workflow) | de Lusignan |
| Self-efficacy (patient involvement) (definition combined through source studies) | Informed patient, Patient involvement in care | Giardina |
| | patient utilization and engagement data, clinical outcomes | Amante |
| | Patient involvement | de Lusignan |
| | Communication, Medication accuracy and safety (as a result of patient's being involved in their care through record access) | Goldzweig |
| | Global health status, emotional functioning, and cognitive functioning (measured using the European Organization for Research and Treatment of Cancer QLQ-C30 questionnaire) | Ko |

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| | Patient interest Interest in examining their medical record and the reasons for their interest | Ferreira |
| Psychological (definition combined through source studies) | Anxiety, Quality of life, Anxiety/depression/contentment | Giardina |
| | health outcomes, health status, satisfaction, or adherence | Goldzweig |
| | Global health status, emotional functioning, and cognitive functioning (measured using the European Organization for Research and Treatment of Cancer QLQ-C30 questionnaire), Verona Service Satisfaction Scale-54 (VSSS-54) and the Krawiecka and Goldberg (K & G) | Ko |
| | Anxiety levels | Ferreira |
| | Stress | Poissant |
| Doctor views (definition combined through source study) | Doctor's perception | Giardina |
| | Clinician satisfaction (User satisfaction) | Nyugen |
| Cost of interventions (definition combined through source studies) | Cost of interventions | Giardina |
| | Administration efficiency and cost reduction | Nyugen |
| | To assess the effects on health care resource utilization of a network of microcomputer workstations (record access) for writing all inpatient orders | Poissant |
| Self-efficacy (communication) (definition combined through source studies) | Information sharing | Giardina |
| | Attitudes | Goldzweig |
| Self-reported health outcome/behaviour (definition from Giardina) | Health related behaviours (e.g. diet, smoking, medications) Self reported health outcomes (e.g. physical health functioning) | Giardina |

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| | Subjective views of patient satisfaction with communication and perception of communication as determined by structured interview, Self-reported use of the PAEHR , Health related behaviours | Ko |
| Security, privacy and confidentiality concerns (definition combined through source studies) | Concerns over privacy and confidentiality | Nyugen |
| | Privacy and security concerns | de Lusignan |
| | Attitudes | Goldzweig |