# Work sheet Day 1 - Practical exercises measurement & reporting

Answer the following questions based on the article proposed and/or from your/your colleagues’ knowledge of the medication, condition, clinical setting, health system (either presented in the article or similar):

1. What do you know about the adherence process for the medication(s) studied?

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| **Prescriptions** | how long are prescriptions valid, what are prescription renewal intervals? |
| **Recommended dosing events** | when should administration start after prescription?  what is the range of the recommended dose and frequency of administration?  are doses and dosing intervals fix or do they vary within patients? |
| **Dispensations** | for how many days are medications supplied?  what is the expected refill frequency?  does automatic dispensing occur? |
| **Actual dosing events** | what are the administration routes?  how can patients modify medications?  how might seasonal influences affect administration? |

1. For what period information about adherence could be available in principle?
2. For what period were the authors interested to measure adherence in this study?
3. Can you identify the following key events in the adherence process :

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| **First recommended dosing event** | What is the duration without prescribed use after which a recommended dosing event is considered a first recommended dosing event? |
| **First actual dosing event** | What is the minimum duration between first recommended dosing event and first actual dosing event? |
| **Last actual dosing event** | What is the minimum duration with no dosing event to differentiate between poor implementation and non-persistence? |
| **Last recommended dosing event** | How is the date of treatment end identified?  How are treatment changes/replacements differentiated from treatment interruptions? |

1. What does the study aim to find out about adherence?

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| **Intervention** | What intervention(s) will be provided with a potential impact on medication adherence?  On what ecological level (patient, micro, meso, macro) do they apply? |
| **Predictors** | What potential predictors of adherence will be measured and/or targeted by the intervention(s)?  On what ecological level? |
| **Outcomes** | What outcomes will be measured?  How are they affected by medication adherence?  On what ecological level? |
| **Moderators/ mediators** | What variables will be measured?  How do they intervene in the causal process?  On what ecological level? |

1. What do we know about this data source and any alternatives in this context?

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| What data sources are available to derive the 4 key events? |
| What additional data are available to measure adherence? |
| For what time period(s) are data available? |
| How complete are the available datasets? |
| What is the validity/reliability of the available data? |
| What are the options for additional data collection? |
| What are potential sources of measurement error? |

EMERGE reporting – Measurement-related elements

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| 1.a. **Phases of medication adherence**: State the phase(s) of medication adherence – studied (i.e., initiation, implementation, and persistence), and justify, where possible, focusing on this/these phase(s). |  |
| 1.b. **Operational definition**: Provide the precise operational/working definition for each phase of medication adherence studied (i.e., initiation, implementation, and persistence). |  |
| 1.c. **Measurement**: Specify the methods of measuring medication adherence (e.g., – self-report, claims data, blood sampling, and electronic monitoring). Consider each phase studied (i.e., initiation, implementation, and persistence), with details on the performance of the measures, where applicable (e.g., validity, reliability, and potential bias). |  |
| 6.a. Measurement methods can themselves affect medication adherence (e.g., questionnaires, blood sampling, and electronic monitoring). Address this problem as appropriate. |  |