Supplemental Table 2. Overview of timeline assessments performed.

Timelines analyzed	Abbreviation	Measure	Milestones and calculation	Method used
The clinical development timeline	CDT	Time from the date of the first final protocol to the date of EMA submission for a marketing application.	Date of the first final protocol to the date of the marketing application, stated in EPAR. The date of the first final protocol was the earliest available date in a clinical development program.	Microsoft Excel DATEDIF function. Find the difference in days (+ 1 day for initiation date): Conversion to years: Number of days ÷ 365.25.
Duration of subject participation in clinical development	DSP	The duration of subject participation	First-subject-in (FSI) in the first study to last-subject-out (LSO) last study in a CDP (if a study was ongoing, the last LSO date in the interim report was used). The time to FSI from the final protocol and the time to finalize the eCTD for submission were excluded.	Microsoft Excel DATEDIF function. Find the difference in days (+ 2 days as FSI and LSO included): Conversion to years: Number of days ÷ 365.25.
Total subject recruitment time	TSRT	The number of days that a subject was participating in any clinical study.	The time that subjects were actively participating and contributed to data collection. Summation of recruitment days across the clinical development. Overlap in recruitment across concurrent clinical trials was treated as if the FSI in the first study continued and ended with the LSO in the study before an interruption (or the LSO in the last study in the clinical development).	TSRT = DSP time – the cumulative number of days due to interruptions in the clinical development recruitment.
Interruption period(s), ie no overlapping recruitment in clinical studies in the same CDP.	N/A	An interruption in the clinical development pathway (CDP) was counted if there was a period between clinical studies without subjects participating in a clinical study.	The analysis was performed because the avoidance of interruptions could theoretically reduce the development time. The number of days between the LSO of a clinical study and FSI in the subsequent clinical study. There were no interruptions for clinical studies conducted concurrently.	Visual check of the generated GANTT chart, ie periods of no overlap between the FSI in one clinical study and the LSO of a previously recruiting clinical study, see Figure 4. GANTT chart of the clinical development of eluxadoline.

Timelines analyzed	Abbreviation	Measure	Milestones and calculation	Method used
The time to phase II	N/A	Length of time of the human pharmacology phase before initiation of the therapeutic exploratory phase of development.	Time to the initiation of the therapeutic exploratory clinical development phase. This was calculated from the FSI in the CDP to the FSI in the first phase II clinical study of the CDP.	Microsoft Excel DATEDIF function. Find the difference in days: Conversion to years: Number of days ÷ 365.25.
The time to phase III	N/A	Length of time of the therapeutic exploratory phase before initiation of the therapeutic confirmatory phase of development.	Time to the initiation of the therapeutic confirmatory clinical phase. This was calculated from the FSI in the CDP to the FSI in the first phase III clinical study of the CDP.	Microsoft Excel DATEDIF function. Find the difference in days: Conversion to years: Number of days ÷ 365.25.
Time of clinical studies pertinent to the label	N/A	Length of time spend gathering data to support the label claim for marketing.	Length of time for clinical data collection from subjects for the label (ie, the studies in M.5.3.5.1). This was calculated from the FSI in the first M.5.3.5.1 clinical study to the LSO of the last clinical study in section M.5.3.5.1 of the eCTD.	Microsoft Excel DATEDIF function. Find the difference in days: Conversion to years: Number of days ÷ 365.25.