

## NEDi2 Key Performance Indicators

This document defines the key performance indicators (KPIs) that will be presented to users on the National Endoscopy Database (NED) dashboard.

The KPIs are categorised by procedure type. Calculation methods and other considerations are given. Where available, BSG standards and aspirational JAG targets are given.

For many KPIs, the numerator (total number of specific procedures performed by a specific endoscopist in a stated period) will be derived from procedures where the endoscopist is recorded as 'Independent endoscopist 1'.

For a trainee, this will be the total number of procedures where the trainee is listed as 'trainee' or as 'Independent endoscopist 1' (but is known to be an independent trainee by cross referencing the unique endoscopist ID with their training status).

Endoscopists will be uniquely identified by their GMC/NMC number. Non clinical endoscopists or endoscopists not willing to be identified by their GMC/NMC number will be identified by a unique code generated within the Endoscopy Reporting System (ERS) at a local level. This code will be recorded within the ERS in the GMC/NMC code field but would only be known to the local ERS administrator.

An important role of the NED database is to allow individual endoscopists, units and hospital trusts to count the overall number of procedures of each type they are performing. Additionally, the database allows these data to be broken down by indication and procedure findings and the ability to drill down to hospital and trust level.

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# OGD

KPI	Abbreviation	Definition	Data fields	Output format	Reference	JAG audit	JAG standards	BSG QA standards
<b>Procedure count</b>	UGIProcNum	Number of diagnostic or therapeutic OGD performed by an endoscopist or site in a stated period of time	{procedureName}=[OGD] By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	integer		per endoscopist, including those directly supervising a trainee within the room	100	100% > 100 aspirational standard
<b>D2 intubation rate</b>	OGDD2IR	Percentage of OGD performed by a stated endoscopist /site in a stated period where D2 reached	Numerator: {procedureName}=[OGD], {extent}=[Duodenum-Duodenum 2nd part, Duodenum 3rd part, duodenum 4th part] Denominator: {procedureName}=[OGD]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]  Exclude procedures where indication =Barretts oesophagus or varices surveillance/screening	percentage		per endoscopist	95%	
<b>Intubation success rate</b>	OGDISR	Percentage of OGD performed by a stated endoscopist /site in a stated period where at least oesophagus reached	Numerator: {procedureName}=[OGD], {extent}=[oesophagus, stomach, jejunum, ileum] (or any of their lookups) Denominator: {procedureName}=[OGD]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	percentage		per endoscopist	95%	

KPI	Abbreviation	Definition	Data fields	Output format	Reference	JAG audit	JAG standards	BSG QA standards
<b>J manoeuvre rate</b>	OGDJR	Percentage of OGD performed by a stated endoscopist /site in a stated period where J manoeuvre successfully performed	Numerator: {procedureName}=[OGD], {jManoeuvre}=[Yes] Denominator: {procedureName}=[OGD]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	percentage		per endoscopist	95%	
<b>Median dose (age &lt;70) Midazolam</b>	OGDMLT70	Median dose of midazolam administered when used for OGD by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	{procedureName}=[OGD], {midazolam}=[number] Denominator: {procedureName}=[OGD]  Conditions: Exclude where{midazolam}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}<[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	percentage		per endoscopist	≤ 5mg Midazolam	
<b>Median dose (age ≥70) Midazolam</b>	OGDMGT70	Median dose of midazolam administered when used for OGD by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	{procedureName}=[OGD], {midazolam}=[number] Denominator: {procedureName}=[OGD]  Conditions: Exclude where{midazolam}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}≥[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	percentage		per endoscopist	≤ 2 mg Midazolam	

KPI	Abbreviation	Definition	Data fields	Output format	Reference	JAG audit	JAG standards	BSG QA standards
<b>Median dose (age &lt;70) Pethidine</b>	OGDPLT70	Median dose of pethidine administered <b>when used</b> for OGD by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	Numerator: {procedureName}=[OGD], {pethidine}=[number] Denominator: {procedureName}=[OGD]  Conditions: Exclude where{pethidine}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}<[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	percentage		per endoscopist	≤ 50mg Pethidine	
<b>Median dose (age ≥70) Pethidine</b>	OGDPGT70	Median dose of pethidine administered when used for OGD by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	{procedureName}=[OGD], {pethidine}=[number] Denominator: {procedureName}=[OGD]  Conditions: Exclude where{pethidine}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}≥[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	percentage		per endoscopist	≤ 25 mg Pethidine	

KPI	Abbreviation	Definition	Data fields	Output format	Reference	JAG audit	JAG standards	BSG QA standards
<b>Median dose (age &lt;70) Fentanyl</b>	OGDFLT70	Median dose of fentanyl administered when used for OGD by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	{procedureName}=[OGD], {fentanyl}=[number] Denominator: {procedureName}=[OGD]  Conditions: Exclude where {fentanyl}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}<[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}=[x]to[y]	percentage		per endoscopist	(≤100mcg Fentanyl)	
<b>Median dose (age ≥70) Fentanyl</b>	OGDGT70	Median dose of fentanyl administered when used for OGD by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	{procedureName}=[OGD], {fentanyl}=[number] Denominator: {procedureName}=[OGD]  Conditions: Exclude where {fentanyl}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}≥ [70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}=[x]to[y]	percentage		per endoscopist	(≤ 50 mcg Fentanyl)	
<b>Unsedated procedures</b>	OGDUS	Percentage of OGD performed by a stated endoscopist or at a stated site in a stated period where the no midazolam, fentanyl or pethidine was administered.	{procedureName}=[OGD], {pethidine}=[null], {midazolam}=[null], {fentanyl}=[null]  Denominator: {procedureName}=[OGD] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}=[x]to[y]	percentage		per endoscopist		

KPI	Abbreviation	Definition	Data fields	Output format	Reference	JAG audit	JAG standards	BSG QA standards
<b>Greater than recommended dose</b>	OGDGTRD	Percentage of OGD performed by a stated endoscopist or at a stated site in a stated period where the dose of midazolam exceeded 5mg in patients aged <70 and 2.5mg in patients aged ≥70	{procedureName}=[OGD]  Age <70 {midazolam}>5mg {procedureName}=[OGD]  Age <70 {midazolam}>5mg  Age ≥70 {midazolam}>2.5mg	percentage		per endoscopist	0	
<b>Comfort score</b>	OGDCOM34	Percentage of OGD performed by a stated endoscopist or at a stated site in a stated period where the comfort level is recorded as moderate or severe.	{procedureName}=[OGD], Numerator: {DiscomfortEnum}= [moderate] or [severe]  Denominator: {procedureName}=[OGD]	percentage		per endoscopist		
<b>Gastric ulcers re-scoped within 12 weeks</b>	OGDGURS12	Percentage of procedures with diagnosis of gastric ulcer who undergo repeat OGD within 12 weeks	{procedure name}=[OGD], numerator- [diagnosis]=[Gastric Ulcer] AND further OGD with [indication]={ulcer healing} within 12 weeks of initial OGD [session_date]	percentage	JAG	service	100%	
<b>Follow up of GU, oesophageal ulcer or grade D oesophagitis at &lt;6-8 weeks</b>	OGDGUOUS68	Percentage of procedures with diagnosis of gastric ulcer, oesophageal ulcer or grade D oesophagitis who undergo repeat OGD within 6-8 weeks	{procedure name}=[OGD], numerator- {diagnosis}=[Gastric Ulcer], [oesophageal ulcer] OR [Oesophagitis- reflux] and [LA classification Oesophagitis]=[D] AND further OGD with [indication]={ulcer healing} within 12 weeks of initial OGD [session_date] Denominator= {diagnosis}=[Gastric Ulcer], [oesophageal ulcer] OR [Oesophagitis- reflux] and [LA classification Oesophagitis]=[D]	percentage	BSG			>90% minimum, 100% aspirational
<b>Quality of mucosal visualisation reported</b>	OGDMVDOC	percentage of OGD procedures where quality of mucosal visualisation reported	{procedure name}=[OGD]. Numerator- {Proc_OGDmucosalvisualisation}= populated. Denominator- all [OGD]	percentage	BSG			>90% aspirational

KPI	Abbreviation	Definition	Data fields	Output format	Reference	JAG audit	JAG standards	BSG QA standards
<b>Checklist completion</b>	OGDCC	percentage of OGD procedures where a safety checklist is completed prior to the procedure.	{procedureName}=[OGD] Numerator: {Proc_Checklist}=[Yes] denominator: {procedureName}=[OGD]	percentage	BSG			
<b>Photo documentation (photo obtained of UO, GOJ, fundus in RF, gastric body, incisura in RF, antrum, bulb, D2)</b>	OGDPD	percentage of OGD procedures where photo documentation obtained in line with BSG guidance (UO, GOJ, fundus in RF, gastric body, incisura in RF, antrum, bulb, D2)	{procedureName}=[OGD] Numerator: {Proc_photodocumentation}=[Yes] denominator: {procedureName}=[OGD]	percentage	BSG			>90% aspirational
<b>Prague classification completed for Barretts</b>	OGDBARP	percentage of procedure where Barretts oesophagus detected and prague classification completed.	{procedure name}=[OGD]. Numerator= Diagnosis [Barrett's oesophagus], [Proc_Barrettslengthcircumferential]>0 AND [Proc_Barrettslengthmaximum]>0. denominator= Diagnosis [Barrett's oesophagus]	percentage	BSG			>90% minimum, 100% aspirational
<b>Barrett's inspection time</b>	OGDBARIT	mean barretts inspection time where indication is barretts surveillance (inspection time= GOJ to extubation during withdrawal, either automatically entered or manually entered).	{procedureName}=[OGD], {Indication}= [Barretts oesophagus surveillance], mean[Proc_Barrettsinspectiontime]	percentage	BSG			
<b>Procedure time</b>	OGDPT	mean procedure time for OGD, 'from teeth to teeth'	{procedureName}=[OGD], mean[Proc_time]	integer-allow to one decimal place	BSG			



KPI	Abbreviation	Definition	Data fields	Output format	Reference	JAG audit	JAG standards	BSG QA standards
<b>Mucosal visualisation quality</b>	OGDMVQ	percentage of procedures where mucosal visualisation for OGD is adequate (recorded as satisfactory or excellent)	{procedureName}=[OGD], numerator={Proc_OGDmucosalvisualisaiton}=[satisfactory views obtained] OR [Excellent views of all area] . Denominator= OGD and {Proc_OGDmucosalvisualisaiton} = [excellent views of all areas] or [satisfactory views obtained] or [poor views of some areas] or [examination was curtailed]	percentage	BSG			75% adequate minimal, 100% adequate aspirational
<b>2 biopsy sites in suspected eosinophilic Oesophagitis</b>	OGDOEBX	percentage of patients with suspected eosinophilic oesophagitis (food bolus obstruction or dysphagia and no alternative cause found) in whom biopsies taken in two different regions of oesophagus.	{procedure Name}=[OGD], numerator={indication}= [dysphagia] and/or [Food bolus obstruction] AND {proc_biopsies}= any 2 of [upper oesophagus], [middle oesophagus] or [lower oesophagus]. Denominator={indication}= [dysphagia] and/or [Food bolus obstruction] exclusion {diagnosis}= oesophageal candidiasis, oesophageal stricture- benign, oesophageal stricture- malignant, oesophageal tumour- benign, oesophageal tumour- malignant, oesophageal varices, pharyngeal pouch]	percentage	BSG			>90% minimum, 100% aspirational
<b>Gastric antral and body biopsies in gastric atrophy</b>	OGDGABX	percentage of procedures with a diagnosis of gastric atrophy with biopsies taken from gastric antrum and body	{procedure Name}=[OGD], numerator={indication}= [High Cancer risk surveillance],[Gastric atrophy] AND {proc_biopsies}= [antrum general or lesser curvature, greater curvature, anterior wall or posterior wall] AND [Body general, greater curvature, lesser curvature, anterior wall or posterior wall]. Denominator= {indication}= [High Cancer risk surveillance],[Gastric atrophy]	percentage	BSG			
<b>Coeliac biopsies from duodenum (&gt;3) and bulb (1)</b>	OGDCDBX	percentage of procedures with suspected coeliac disease with biopsies taken from second part of duodenum and bulb	{procedureName}=[OGD], Indication={Positive TTG / EMA} AND {proc_biopsies}= [Duodenum 2nd part] and [Duodenum 1st part]. Denominator= Indication={Positive TTG / EMA}	percentage	BSG			

# Colonoscopy

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>Procedure count</b>	COLProcNum	Number of diagnostic or therapeutic colonoscopies performed by an endoscopist or site in a stated period of time	{procedureName}=[COLON] By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]	Integer	per endoscopist, including those directly supervising a trainee within the room	GRS, JETS, NED	JAG- 100/ year		
<b>Caecal intubation rate</b>	COLCIR	Percentage of colonoscopies where caecum or anastomosis reached by a stated endoscopist or at a stated site in a stated period	Numerator: {procedureName}=[COLON], {ExtentTypeEnum}=[Caecum] or [terminal ileum] or [anastomosis] or [ileo-colon anastomosis] or [neo-terminal ileum] Denominator: {procedureName}=[COLON] Exclusion- exclude procedures where [planned extent] is not {caecum} or { terminal ileum} or {neo-terminal ileum} or [anastamosis] Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]	Percentage	per endoscopist	JETS, NED	Minimum standard 90%, aspirational target 95%	90% unadjusted completion rate	Minimum standard 90%, aspirational target 95%

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>Terminal ileum intubation rate</b>	COLTIIR	Percentage of colonoscopies where terminal ileum reached	Numerator: {procedureName}=[COLON], {ExtentTypeEnum}= [terminal ileum] or [neo-terminal ileum] Denominator: {procedureName}=[COLON] Exclusion- exclude procedures where [planned extent] is not {caecum} or { terminal ileum} or {neo- terminal ileum} or [anastomosis]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]	Percentage	per endoscopist	JETS, Paeds			
<b>Rectal retroversion</b>	COLRRR	Percentage of colonoscopies where rectal retroversion is recorded as having been performed by a stated endoscopist or at a stated site in a stated period	Numerator: {procedureName}=[COLON], {rectal retroversion}=[Yes] Denominator: {procedureName}=[COLON]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]	percentage	per endoscopist	JETS, NED, BSG	Minimum Standard 90% (BSG)		Minimum Standard 90%

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>Colonoscopy Withdrawal time</b>	COLNCCWT	Mean withdrawal time for all negative, complete colonoscopies performed by a stated endoscopist in a stated period	<p>Numerator: Sum of {withdrawal time} where no procedure performed and no polyps detected (normal colonoscopy).</p> <p>Denominator: {procedureName}=[COLON] where no procedure performed AND no polyps detected (normal colonoscopy) AND {ExtentTypeEnum}=[Caecum] or [terminal ileum] or [anastomosis] or [ileo-colon anastomosis] or [neo-terminal ileum]</p> <p>Levels: By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]</p>	minutes	per endoscopist	NED, BSG	<p>Minimum standard – mean of ≥6mins</p> <p>Aspirational target – mean of ≥10 mins (BSG)</p>		Mean of ≥6 mins, Mean of ≥10 minutes
<b>Polyp detection rate</b>	COLPDR	Percentage of colonoscopies performed by a stated endoscopist or at a stated site in a stated period at which one or more polyps were detected	<p>Numerator: {procedureName}=[COLON], {DiagnosisEnum}=[Polyp/s]</p> <p>Denominator: {procedureName}=[COLON]</p> <p>Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]</p> <p>Only include complete procedures: {ExtentTypeEnum}=[Caecum] or [terminal ileum] or [anastomosis] or [ileo-colon anastomosis] or [neo-terminal ileum]</p>	percentage	per endoscopist	NED, BSG			

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>Polyp retrieval success-percentage</b>	COLPRR	Percentage of polyps successfully retrieved by a stated endoscopist or at a stated site in a stated period.	Numerator: {procedureName}=[COLON], {Therapeutic Type}=[polypectomy]=[successful], [retrieval]=[successful]  Denominator= : {procedureName}=[COLON], {Therapeutic Type}=[polypectomy]=[successful]	percentage	per endoscopist	JETS		Polyp recovery >90%	Polyp retrieval rate ≥ 90%
<b>Median dose of Pethidine &lt;70</b>	COLPLT70	Median dose of pethidine administered when used for colonoscopy by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	Numerator: {procedureName}=[COL], {pethidine}=[number]  Conditions: Exclude where {pethidine}=[null] {age}<[70]  Exclude values from median calculation outwith range 12.5-200mg Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	Median dose (mg)	per endoscopist	JETS, NED			

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>Median dose of Pethidine ≥70</b>	COLPGT70	Median dose of pethidine administered when used for colonoscopy by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	{procedureName}=[COL], {pethidine}=[number] Conditions: Exclude where{pethidine}=[null] {age}≥[70] Exclude values from median calculation outwith range 12.5-200mg Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	Median dose (mg)	per endoscopist	JETS, NED			
<b>Median dose of Midazolam &lt;70</b>	COLMLT70	Median dose of midazolam administered when used for colonoscopy by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	{procedureName}=[COL], {midazolam}=[number] Conditions: Exclude where{midazolam}=[null] {age}<[70] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes Exclude values from median calculation outwith range 0.5-10mg Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	Median dose (mg)	per endoscopist	JETS, NED			

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>Median dose of Midazolam ≥70</b>	COLMGT70	Median dose of midazolam administered when used for colonoscopy by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	{procedureName}=[COL], {midazolam}=[number] Denominator: {procedureName}=[COL] Conditions: Exclude where{midazolam}=[null] {age}≥[70] Exclude values from median calculation outwith range 0.5-10mg Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	Median dose (mg)	per endoscopist	JETS, NED			
<b>Median dose of Fentanyl &lt;70</b>	COLFLT70	Median dose of fentanyl administered when used for colonoscopy by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	{procedureName}=[COL], {fentanyl}=[number]  Conditions: Exclude where{fentanyl}=[null] {age}<[70]  Exclude values from median calculation outwith range 12.5-200mcg Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	Median dose (mcg)	per endoscopist	JETS, NED			

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>Median dose of Fentanyl ≥70</b>	COLFGT70	Median dose of fentanyl administered when used for colonoscopy by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	<p>{procedureName}=[COL], {fentanyl}=[number]</p> <p>Conditions: Exclude where {fentanyl}=[null] {age} ≥ [70]</p> <p>Exclude values from median calculation outwith range 12.5-200mcg Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes</p> <p>Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]</p>	Median dose (mcg)	per endoscopist	JETS, NED			
<b>Unsedated procedures</b>	COLUS	Percentage of colonoscopy performed by a stated endoscopist or at a stated site in a stated period where the no midazolam, fentanyl or pethidine was administered.	<p>{procedureName}=[COL], {pethidine}=[null], {midazolam}=[null], {fentanyl}=[null] propofol=null, General anaesthetic=null</p> <p>Denominator: {procedureName}=[COL] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes</p> <p>Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]</p>	Percentage	per endoscopist	JETS, NED			



KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>Sedation greater than recommended dose</b>	COLGTRD	Percentage of colonoscopy performed by a stated endoscopist or at a stated site in a stated period where the dose of midazolam exceeded 5mg in patients aged <70 and 2.5mg in patients aged ≥70 OR the dose of fentanyl exceeded 100 mcg in patients aged <70 and 50mcg in patients aged ≥70 OR where the dose of pethidine exceeded 50 mg in patients aged <70 and 25 mg in patients aged ≥70	{procedureName}=[COL]  Age <70 {pethidine}>50mg {midazolam}>5mg {fentanyl}>100mcg  Age ≥70 {pethidine}>25mg {midazolam}>2.5mg {fentanyl}>50mcg	Percentage	per endoscopist	JETS, NED		Auditable outcome	
<b>Colonoscopy Comfort Score</b>	COLCOM34	Percentage of colonoscopies performed by a stated endoscopist or at a stated site in a stated period where the comfort level is recorded as moderate or severe discomfort.	{procedureName}=[COL], Numerator: {DiscomfortEnum}= [moderate] or [severe]  Denominator: {procedureName}=[COL]	Percentage where comfort score is moderate or severe	per endoscopist	JETS, NED			Units should audit comfort and less than 10% of patients should have moderate or severe discomfort.

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>Bowel preparation quality</b>	COLBPQ	Proportion of flexible sigmoidoscopy where bowel preparation is of sufficient diagnostic quality not to warrant repeat or alternative test	{procedureName}=[COL] Number of procedures where {Proc_BowelPrepTotal}<[6] OR {Proc_BowelPrepTotal}<[4] IF {Proc_PlannedExtent}=[Hepatic Flexure, Transverse , Splenic Flexure] OR {Proc_BowelPrepTotal}<[2] IF {Proc_PlannedExtent}= [Descending colon, sigmoid or rectum]  Denominator: {procedureName}=[COL]	Percentage where bowel prep was not 'Poor' (BBOPS).	For whole service	NED, BSG, JAG, GRS		Good quality bowel prep > 90%	Bowel preparation of at least adequate quality to be achieved in 90% of patients. Aspirational: bowel preparation of at least adequate quality to be achieved in 95% of patients.
<b>Digital Rectal Examination</b>		Percentage of procedures where digital rectal examination is recorded	{procedureName}=[COL] Numerator: {ProcedureName}=[Colon], {Proc_DRE}= {Yes} Denominator: {ProcedureName}=[Colon]	Percentage	per endoscopist	GRS	Rectal examination or omission should be recorded in 100% of cases (BSG)		Rectal examination or omission should be recorded in 100% of cases
<b>UCEIS or Mayo score in UC</b>	COLUCScore	Percentage of procedures where diagnosis is UC and a mayo or UCEIS score recorded	{procedureName}=[COL] Numerator: {Proc_UCEIS} if {Diagnosis}=[Ulcerative Colitis] OR {Proc_Mayo} if {Diagnosis}=[Ulcerative Colitis], Denominator: {Diagnosis}=[Ulcerative Colitis]						

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>CDEIS score in Crohns</b>	COLCSCORE	Percentage of procedures where diagnosis is Crohns and CDEIS recorded	{procedureName}=[COL] Numerator: [Proc_CDEIS] if {Diagnosis}=[Crohns Colitis] or [Crohn`s-terminal ileum] Denominator: {Diagnosis}= [Crohns Colitis] or [Crohn`s-terminal ileum]						
<b>Rutgeerts score in Crohns with previous resection</b>	COLCRUT	Percentage of procedures where diagnosis is Crohns with extent to neo-terminal ileum and Rutgeert`s score recorded.	{procedureName}=[COL] Numerator: {Proc_Rutgeerts} if {Diagnosis}=[Crohns Colitis] or [Crohn`s- terminal ileum] and {ExtentLookup}= [Neo-terminal ileum], Denominator: {Diagnosis}= [Crohns Colitis] or [Crohn`s-terminal ileum] and {ExtentLookup}= [Neo-terminal ileum]	Percentage					
<b>Distal Attachment use</b>	COLDA	Proportion of colonoscopies by Distal attachment use	{procedureName}=[COL] {Proc_DistalAttachment}=[x] / {Proc_DistalAttachment}=[None,distal cuff attachment, cap, other]	Percentage by distal attachment lookup option					

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>CO2 Insufflation</b>	COLCO2	Proportion of colonoscopies by insufflation gas	{procedureName}=[COL] {Proc_Insufflation}=[x] / {Proc_Insufflation}=[air, carbon dioxide]	Percentage by insufflation lookup					
<b>Proportion by insertion technique</b>	COLINS	Proportion of procedures by insertion technique	{procedureName}=[COL] {Proc_insertiontechnique}=[x] / {Proc_insertiontechnique}= [Gas insufflation, Water assisted technique]	Percentage by insertion lookup					
<b>AI system use</b>	COLAI	Proportion of Procedures by AI system use	{procedureName}=[COL] {Proc_AI}=[x], {Proc_AI}=[None, Lesion detection software used, Lesion recognition software used]	Percentage by AILookup field					

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>Checklist completion</b>	COLCL	Percentage of procedures where checklist completed	{procedureName}=[COL] Numerator: {Proc_Checklist}=[Yes] denominator: {procedureName}=[COL]	percentage					
<b>Tattoo of Cancers and polyps ≥20mm</b>	COLTATCAP	Proportion of suspected cancers or polyps ≥20mm (not in the caecum or rectum) where a tattoo is placed	procedureName}=[FLEXI]  Numerator: polyp≥20mm or cancer and tattoo placed [or previous tattoo] not in rectum or caecum  Denominator: number of polyps ≥20mm or cancers not in rectum or caecum	percentage	per endoscopist	JAG		100%	
<b>Diagnostic biopsies for unexplained diarrhoea</b>	COLRCB	Proportion of procedures where chronic diarrhoea is the indication and a minimum of 2 left colonic and 2 right colonic biopsies are obtained	{procedureName}=[colon]  Numerator: biopsy taken  Denominator: {procedureName}=[Colon], {IndicationsEnum}=[Diarrhoea-chronic]	percentage	per endoscopist	JAG, BSG			100%

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
Adverse events	COLAEALL	Number of adverse events recorded during or following colonoscopies performed by a stated endoscopist or at a stated site in a stated period				JETS, NED			
Serious complications	COLAESEV	Number of 'severe' adverse events recorded during or following colonoscopies performed by a stated endoscopist or at a stated site in a stated period							
Post colonoscopy colorectal cancer rate	COLICR3 (or5)	Proportion of times outcome of second colonoscopies within 3 or 5 years has an outcome of cancer which wasn't present at the first	Numerator- First colonoscopies - {DiagnosisEnum} is not [oesophageal tumour- malignant] or [gastric tumour- malignant] Second colonoscopies - {DiagnosisEnum} = [oesophageal tumour- malignant] or [gastric tumour- malignant]  Denominator- {procedureName}=[COL]	percentage		BSG			
Polyp removal rate	COLPRR	Percentage of polyps identified and successfully removed by a stated endoscopist or at a stated site in a stated period.	Numerator: {procedureName}=[COLON], {Therapeutic Type}=[polypectomy]=[successful]  Denominator=?	percentage		JETS			
Polyp removal success <1cm	COLPRSLT10	Percentage of polyps less than 1cm in size successfully removed by a stated endoscopist or at a stated site in a stated period.	Numerator: {procedureName}=[COLON], {Therapeutic Type}=[polypectomy]=[successful],[polypSize]<10mm  Denominator=?	Percentage		JETS			

## Flexible sigmoidoscopy

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>Procedure count</b>	FSProcNum	Number of diagnostic or therapeutic flexible sigmoidoscopies performed by an endoscopist or site in a stated period of time	{procedureName}=[FLEXI] By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}=[x]to[y]	integer	per endoscopist,	JAG, GRS,			
<b>Rectal retroversion</b>	FSRRR	Percentage of flexible sigmoidoscopy where rectal retroversion is recorded as having been performed by a stated endoscopist or at a stated site in a stated period	Numerator: {procedureName}=[FLEXI], {rectal retroversion}=[Yes] Denominator: {procedureName}=[FLEXI]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}=[x]to[y]	Percentage	per endoscopist	JAG, GRS,	BSG 100%, JAG 90%	90%	100%
<b>Digital Rectal Examination</b>		Percentage of procedures where digital rectal examination is recorded	{procedureName}=[Flexi] Numerator: {ProcedureName}=[Flexi], {Proc_DRE}={Yes} Denominator: {ProcedureName}=[FLEXI]	Percentage	per endoscopist	GRS	Rectal examination or omission should be recorded in 100% of cases (BSG)		Rectal examination or omission should be recorded in 100% of cases

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>Polyp detection rate</b>	FSPDR	Percentage of colonoscopies performed by a stated endoscopist or at a stated site in a stated period at which one or more polyps were detected	Numerator: {procedureName}=[FLEXI], {DiagnosisEnum}=[Polyp/s]  Denominator: {procedureName}=[FLEXI]	percentage	per endoscopist	NED, BSG		for info only	
<b>Polyp retrieval success-percentage</b>	FSPRR	Percentage of polyps successfully removed and retrieved by a stated endoscopist or at a stated site in a stated period.	Numerator: {procedureName}=[Flexi], {Therapeutic Type}=[polypectomy]=[successful], [retrieval]=[successful]  Denominator= : {procedureName}=[Flexi], {Therapeutic Type}=[polypectomy]=[successful]	percentage	per endoscopist	JAG, BSG	BSG 90%		90%
<b>Median dose of Pethidine &lt;70</b>	FSPLT70	Average dose of pethidine administered when used for flexible sigmoidoscopy by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	Numerator: {procedureName}=[FLEXI], {pethidine}=[number] Denominator: {procedureName}=[FLEXI] colonoscopy Conditions: Exclude where{pethidine}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}<[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}=[x]to[y]		per endoscopist		≤ 50mg Pethidine		



KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>Median dose of Pethidine ≥70</b>	FSPGT70	Average dose of pethidine administered when used for flexible sigmoidoscopy by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	<p>{procedureName}=[FLEXI], {pethidine}=[number] Denominator: {procedureName}=[FLEXI]</p> <p>Conditions: Exclude where{pethidine}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}≥[70]</p> <p>Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]</p>		per endoscopist		≤ 25 mg Pethidine		
<b>Median dose of Midazolam &lt;70</b>	FSMLT70	Average dose of midazolam administered when used for flexible sigmoidoscopy by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	<p>{procedureName}=[FLEXI], {midazolam}=[number] Denominator: {procedureName}=[FLEXI]</p> <p>Conditions: Exclude where{midazolam}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}&lt;[70]</p> <p>Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]</p>		per endoscopist		≤ 5mg Midazolam		



KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>Median dose of Midazolam ≥70</b>	FSMGT70	Average dose of midazolam administered when used for flexible sigmoidoscopy	{procedureName}=[FLEXI], {midazolam}=[number] Denominator: {procedureName}=[FLEXI]  Conditions: Exclude where{midazolam}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}≥[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]		per endoscopist		≤ 2 mg Midazolam		
<b>Median dose of Fentanyl &lt;70</b>	FSFLT70	by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	{procedureName}=[FLEXI], {fentanyl}=[number] Denominator: {procedureName}=[FLEXI]  Conditions: Exclude where{fentanyl}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}<[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]		per endoscopist		(≤100mcg Fentanyl)		



KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
<b>Median dose of Fentanyl ≥70</b>	FSFGT70	Average dose of fentanyl administered when used for flexible sigmoidoscopy by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	{procedureName}=[FLEXI], {fentanyl}=[number] Denominator: {procedureName}=[FLEXI]  Conditions: Exclude where {fentanyl}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age} ≥ [70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]		per endoscopist		(≤ 50 mcg Fentanyl)		
<b>Unsedated procedures</b>	FSUS	Percentage of FS performed by a stated endoscopist or at a stated site in a stated period where the no midazolam, fentanyl or pethidine was administered.	{procedureName}=[Flexi], {pethidine}=[null], {midazolam}=[null], {fentanyl}=[null]  Denominator: {procedureName}=[Flexi] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]	Percentage	per endoscopist	JETS, NED			
<b>Sedation greater than recommended dose</b>	FSGTRD	Percentage of flexible sigmoidoscopy performed by a stated endoscopist or at a stated site in a stated period where the dose of midazolam exceeded 5mg in patients aged <70 and 2.5mg in patients aged ≥70 OR the dose of fentanyl exceeded 100 mcg in patients aged <70 and	{procedureName}=[Flexi]  Age <70 {pethidine}>50mg {midazolam}>5mg {fentanyl}>100mcg  Age ≥70 {pethidine}>25mg {midazolam}>2.5mg {fentanyl}>50mcg	percentage	per endoscopist		JAG 0	0	

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
		50mcg in patients aged ≥70 OR where the dose of pethidine exceeded 50 mg in patients aged <70 and 25 mg in patients aged ≥70							
<b>Comfort Score</b>	FSCOM34	Percentage of flexible sigmoidoscopy performed by a stated endoscopist or at a stated site in a stated period where the comfort level is recorded as moderate or severe discomfort	{procedureName}=[FLEXI], Numerator: {DiscomfortEnum}=[moderate] or [severe]  Denominator: {procedureName}=[FLEXI]	Percentage where comfort score is moderate or severe	per endoscopist			JAG <10% moderate or severe discomfort	Units should audit comfort and less than 10% of patients should have moderate or severe discomfort.
<b>Bowel preparation quality</b>	FSBPQ	Proportion of flexible sigmoidoscopy where bowel preparation is of sufficient diagnostic quality not to warrant repeat or alternative test	{procedureName}=[FS] Number of procedures where {Proc_BowelPrepTotal}<[2]  Denominator: {procedureName}=[Flexi] Exclude procedure if {Proc_BowelPrepTotal}>3	Percentage where total score is >1 for a FS	For whole service	NED, BSG, JAG, GRS		90%	Bowel preparation of at least adequate quality to be achieved in 90% of patients. Aspirational: bowel preparation of at least adequate quality to be achieved in 95% of patients.
<b>Descending colon intubation rate</b>	FSDCIR	Percentage of flexible sigmoidoscopies where descending colon or anastomosis reached by a stated endoscopist or at a stated site in a stated period	Numerator: {procedureName}=[FLEXI], {ExtentTypeEnum}=[Descending colon] or [transverse colon] or [ascending colon] or [caecum] [anastomosis] or [ileo-colon anastomosis] or [neo-terminal ileum] Denominator: {procedureName}=[FLEXI]  Levels: By {site}=[x] or	Percentage	per endoscopist			For info only	

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
			By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]						
<b>Splenic flexure intubation rate</b>	FSSFIP	Percentage of flexible sigmoidoscopies where splenic flexure or anastomosis reached by a stated endoscopist or at a stated site in a stated period	Numerator: {procedureName}=[FLEXI], {ExtentTypeEnum}=[Splenic Flexure] or [transverse colon] or [ascending colon] or [caecum] [anastomosis] or [ileo-colon anastomosis] or [neo-terminal ileum] Denominator: {procedureName}=[FLEXI]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]		per endoscopist			for info only	
<b>Tattoo of Cancers and polyps ≥20mm</b>	FSTATCAP	Proportion of suspected cancers or polyps ≥20mm (not in the caecum or rectum) where a tattoo is placed	procedureName}=[FLEXI]  Numerator: polyp≥20mm or cancer and tattoo placed [or previous tattoo] not in rectum or caecum  Denominator: number of polyps ≥20mm or cancers not in rectum or caecum	percentage	per endoscopist	JAG		100%	
<b>Diagnostic biopsies for unexplained diarrhoea</b>	FSRCB	Proportion of procedures where chronic diarrhoea is the indication and a minimum of 2 left colonic and 2 right colonic biopsies are obtained	{procedureName}=[FLEXI]  Numerator: biopsy taken  Denominator: {procedureName}=[Flexi], {IndicationsEnum}=[Diarrhoea-chronic or Diarrhoea-chronic with blood]	percentage	per endoscopist	JAG, BSG			100%

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	Reference	Targets	JAG standards	BSG QA standards
Checklist completion	FSCS	Percentage of FS where checklist completed	{procedureName}=[FS] Numerator: {Proc_Checklist}=[Yes] denominator: {procedureName}=[COL]	percentage					



# ERCP

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	JAG standards
<b>Procedure count</b>	ERCPProcNum	Number of diagnostic or therapeutic ERCP performed by an endoscopist or site in a stated period of time	{procedureName}=[ERCP] By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	integer		min 75 asp 100, for whole service min 150, asp 200
<b>Median dose (age &lt;70) Midazolam</b>	ERCPMLT70	Median dose of midazolam administered when used for ERCP by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	{procedureName}=[ERCP], {midazolam}=[number] Denominator: {procedureName}=[ERCP]  Conditions: Exclude where{midazolam}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}<{70}  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	integer		≤ 5mg Midazolam
<b>Median dose (age ≥70) Midazolam</b>	ERCPMGT70	Median dose of midazolam administered when used for ERCP by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	{procedureName}=[ERCP], {midazolam}=[number] Denominator: {procedureName}=[ERCP]  Conditions: Exclude where{midazolam}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}≥{70}  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	integer		≤ 2 mg Midazolam

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	JAG standards
<b>Median dose (age &lt;70) Pethidine</b>	ERCPPLT70	Median dose of pethidine administered <b>when used</b> for ERCP by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	Numerator: {procedureName}=[ERCP], {pethidine}=[number] Denominator: {procedureName}=[ERCP]  Conditions: Exclude where{pethidine}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}<[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]	integer		≤ 50mg Pethidine
<b>Median dose (age ≥70) Pethidine</b>	ERCPPGT70	Median dose of pethidine administered when used for OGD by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	{procedureName}=[ERCP], {pethidine}=[number] Denominator: {procedureName}=[ERCP] Conditions: Exclude where{pethidine}=[null] {age}≥[70] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]	integer		≤ 25 mg Pethidine
<b>Median dose (age &lt;70) Fentanyl</b>	ERCPFLT70	Median dose of fentanyl administered when used for OGD by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	{procedureName}=[ERCP], {fentanyl}=[number] Denominator: {procedureName}=[ERCP]  Conditions: Exclude where{fentanyl}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}<[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]	integer		(≤100mcg Fentanyl)



KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	JAG standards
<b>Median dose (age ≥70) Fentanyl</b>	ERCPGT70	Median dose of fentanyl administered when used for OGD by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	{procedureName}=[ERCP], {fentanyl}=[number] Denominator: {procedureName}=[ERCP]  Conditions: Exclude where {fentanyl}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}≥ [70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	integer		(≤ 50 mcg Fentanyl)
<b>Greater than recommended dose</b>	ERCPGTRD	Percentage of OGD performed by a stated endoscopist or at a stated site in a stated period where the dose of midazolam exceeded 5mg in patients aged <70 and 2.5mg in patients aged ≥70	{procedureName}=[ERCP]  Age <70 {midazolam}>5mg {procedureName}=[ERCP]  Age <70 {midazolam}>5mg  Age ≥70 {midazolam}>2.5mg	Percentage		
<b>Comfort Score</b>	ERCPCOM34	Percentage of OGD performed by a stated endoscopist or at a stated site in a stated period where the comfort level is recorded as moderate or severe discomfort.	{procedureName}=[ERCP], Numerator: {DiscomfortEnum}= [moderate] or [severe]  Denominator: {procedureName}=[ERCP]	Percentage		

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	JAG standards
<b>Extraction of stones &gt;10mm in size</b>	ERCSTEX10	Percentage of ERCP procedures where stone (s) >10mm successfully cleared	{ProcedureName}=[ERCP], numerator- {Size of largest stone visualised}>9mm AND [Complete stone clearance]={Yes}. Denominator- numerator- {Size of largest stone visualised}>9mm	Percentage		
<b>Successful cannulation (of clinically relevant duct) in first ever ERCP.</b>	ERCPC	Percentage of ERCP procedures where Successful cannulation of clinically relevant duct achieved at patient's first ever ERCP (exclude those with previous Beroth 2 / Roux-en-Y)	{ProcedureName}=[ERCP], numerator- {Successful cannulation}= [yes] AND {native papilla}=[yes] AND {Previous surgery (ERCP)}=[no]. Denominator- {ProcedureName}=[ERCP] AND {native papilla}=[yes] AND {Previous surgery (ERCP)}=[no]	Percentage		min >85%, asp >90%
<b>CBD stone clearance at first ERCP.</b>	ERCPC	Percentage of ERCP procedures where CBD stone clearance at patient's first ever ERCP achieved (exclude those with previous Beroth 2 / Roux-en-Y)	{ProcedureName}=[ERCP], numerator- {Complete Stone Clearance}= [yes] AND {native papilla}=[yes] AND {Previous surgery (ERCP)}=[no]. Denominator- {ProcedureName}=[ERCP] AND {Complete Stone Clearance}= [yes] OR [No] AND {native papilla}=[yes] AND {Previous surgery (ERCP)}=[no]	Percentage		min >75%, asp>80%
<b>Extra-hepatic stricture cytology/histology and stent placement at first ERCP</b>	ERCPCSTR	Percentage of procedures where Extra-hepatic stricture detected and cytology/histology and stent placement at patient's first ever ERCP (exclude those with previous Beroth 2 / Roux-en-Y)	{ProcedureName}=[ERCP], numerator- {Extra-hepatic Stricture }= [yes] AND {Extra-hepatic Stricture cytology/histology taken}=[Yes] AND {Extra-hepatic Stricture stent successfully placed }=[yes] AND {native papilla}=[yes] AND {Previous surgery (ERCP)}=[no]. Denominator- {ProcedureName}=[ERCP] AND {ProcedureName}=[ERCP], numerator- {Extra-hepatic Stricture }= [yes] AND {native papilla}=[yes] AND {Previous surgery (ERCP)}=[no]	Percentage		min >80%, asp85%

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	JAG standards
<b>Prophylactic rectal NSAID use</b>	ERCPRNS	Percentage of ERCP procedures where prophylactic rectal NSAID administered	{ProcedureName}=[ERCP], numerator- {ERCP Prophylactic rectal NSAIDS}= [yes]. Denominator {ProcedureName}=[ERCP]	Percentage		
<b>Checklist completion</b>	ERCPC	Percentage of ERCP procedures where checklist is completed prior to procedure	{procedureName}=[ERCP] Numerator: {Proc_Checklist}=[Yes] denominator: {procedureName}=[ERCP]	Percentage		
<b>Proportion with GA or propofol</b>	ERCPGAPR	Percentage of ERCP procedures performed with GA or propofol	{procedureName}=[ERCP] {proc_dose_propofol}= [Yes] or {proc_general_anaes}=[yes]. Numerator= {procedureName}=[ERCP]	integer		

# EUS

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	JAG standards
<b>Procedure Count</b>	EUSProcNum	Number of diagnostic or therapeutic EUS performed by an endoscopist or site in a stated period	{procedureName}=[EUS] By {site}=[x] or By {professionalbodycode}=[x] In period {Ukdatetype}= [x]to[y]	integer	per endoscopist, including those directly supervising a trainee within the room. Also present for whole service.	min 75 asp 100, for whole service min 150, asp 200
<b>Median dose (age &lt;70) Midazolam</b>	EUSMLT70	Median dose of midazolam administered when used for EUS by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	{procedureName}=[EUS], {midazolam}=[number] Denominator: {procedureName}=[EUS]  Conditions: Exclude where{midazolam}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}<[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	integer	per endoscopist	≤ 5mg Midazolam
<b>Median dose (age ≥70) Midazolam</b>	EUSMGT70	Median dose of midazolam administered when used for EUS by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	{procedureName}=[EUS], {midazolam}=[number] Denominator: {procedureName}=[EUS]  Conditions: Exclude where{midazolam}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}≥[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	integer	per endoscopist	≤ 2 mg Midazolam

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	JAG standards
<b>Median dose (age &lt;70) Pethidine</b>	EUSPLT70	Median dose of pethidine administered when used for EUS by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	Numerator: {procedureName}=[EUS], {pethidine}=[number] Denominator: {procedureName}=[EUS]  Conditions: Exclude where{pethidine}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}<[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]	integer	per endoscopist	≤ 50mg Pethidine
<b>Median dose (age ≥70) Pethidine</b>	EUSPGT70	Median dose of pethidine administered when used for OGD by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	{procedureName}=[EUS], {pethidine}=[number] Denominator: {procedureName}=[EUS] Conditions: Exclude where{pethidine}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}≥[70] Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]	integer	per endoscopist	≤ 25 mg Pethidine
<b>Median dose (age &lt;70) Fentanyl</b>	EUSFLT70	Median dose of fentanyl administered when used for OGD by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	{procedureName}=[EUS], {fentanyl}=[number] Denominator: {procedureName}=[EUS]  Conditions: Exclude where{fentanyl}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}<[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]	integer	per endoscopist	(≤100mcg Fentanyl

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	JAG standards
<b>Median dose (age ≥70) Fentanyl</b>	EUSGT70	Median dose of fentanyl administered when used for OGD by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	{procedureName}=[EUS], {fentanyl}=[number] Denominator: {procedureName}=[EUS]  Conditions: Exclude where{fentanyl}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_aaes]=Yes {age}≥ [70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	integer	per endoscopist	(≤ 50 mcg Fentanyl)
<b>Greater than recommended dose</b>	EUSGTRD	Percentage of OGD performed by a stated endoscopist or at a stated site in a stated period where the dose of midazolam exceeded 5mg in patients aged <70 and 2.5mg in patients aged ≥70	{procedureName}=[EUS]  Age <70 {midazolam}>5mg {procedureName}=[EUS]  Age <70 {midazolam}>5mg  Age ≥70 {midazolam}>2.5mg	Percentage	per endoscopist	
<b>Comfort Score</b>	EUSCOM34	Percentage of OGD performed by a stated endoscopist or at a stated site in a stated period where the comfort level is recorded as moderate or severe discomfort.	{procedureName}=[EUS], Numerator: {DiscomfortEnum}= [moderate] or [severe]  Denominator: {procedureName}=[EUS]	Percentage	per endoscopist	
<b>Unsedated procedures</b>	EUSUS	Percentage of EUS performed by a stated endoscopist or at a stated site in a stated period where the no midazolam, fentanyl or pethidine was administered.	{procedureName}=[EUS], {pethidine}=[null], {midazolam}=[null], {fentanyl}=[null]  Denominator: {procedureName}=[EUS]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	Percentage	per endoscopist	

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	JAG standards
<b>Prophylactic antibiotics before puncture of cystic lesion</b>	EUSPRABCY	Percentage of EUS procedures where Prophylactic antibiotics administered before EUS guided puncture of cystic lesions	{ProcedureName}=[EUS], numerator- {Prophylactic antibiotics (EUS)}= [yes]. Denominator {ProcedureName}=[EUS] AND {Prophylactic antibiotics (EUS)}= [yes] or[No]	Percentage	per endoscopist	min 90%, asp 95%
<b>Successful acquisition of tissue (FNA or FNB) from solid lesions</b>	EUSTISACQ	Percentage of EUS procedures where diagnostic tissue sample in EUS FNA or FNB (fine needle biopsy) of solid lesions obtained	{ProcedureName}=[EUS], numerator- {EUS FNA or FNB of solid lesions}= [yes]. Denominator {ProcedureName}=[EUS] AND {EUS FNA or FNB of solid lesions}= [yes] or[No]	Percentage	per endoscopist	min 85%, asp 90%
<b>Tissue adequacy of EUS FNA/B (not mandatory)</b>	EUSTISAD	Percentage of EUS procedures where diagnostic tissue sample in EUS FNA or FNB (fine needle biopsy) of solid lesions adequate	{ProcedureName}=[EUS], numerator- {Tissue adequacy of EUS FNA/FNB}= [yes]. Denominator {ProcedureName}=[EUS] AND {Tissue adequacy of EUS FNA/FNB}= [yes] or[No]	Percentage		
<b>Checklist completion</b>	EUSCC	Percentage of EUS procedures where checklist completed before procedure	{procedureName}=[EUS] Numerator: {Proc_Checklist}=[Yes] denominator: {procedureName}=[EUS]	Percentage		
<b>Proportion with GA or propofol</b>	EUSGAPR	Percentage of EUS procedures performed with GA or propofol	{procedureName}=[EUS] {proc_dose_propofol}= [Yes] or {proc_general_anaes}=[yes]. Numerator= {procedureName}=[EUS]	integer		

# ENT

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	JAG standards
<b>Number</b>	ENTProcNum	Number of diagnostic or therapeutic ENT performed by an endoscopist or site in a stated period of time	{procedureName}=[ENT] By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	integer	per endoscopist, including those directly supervising a trainee within the room. Also present for whole service.	min 75 asp 100, for whole service min 150, asp 200
<b>Median dose (age &lt;70) Midazolam</b>	ENTMLT70	Median dose of midazolam administered when used for ENT by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	{procedureName}=[ENT], {midazolam}=[number] Denominator: {procedureName}=[ENT]  Conditions: Exclude where{midazolam}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}<[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	integer	per endoscopist	≤ 5mg Midazolam
<b>Median dose (age ≥70) Midazolam</b>	ENTMGT70	Median dose of midazolam administered when used for ENT by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	{procedureName}=[ENT], {midazolam}=[number] Denominator: {procedureName}=[ENT]  Conditions: Exclude where{midazolam}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}≥[70]	integer	per endoscopist	≤ 2 mg Midazolam



KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	JAG standards
			Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]			
<b>Median dose (age &lt;70) Pethidine</b>	ENTPLT70	Median dose of pethidine administered when used for ENT by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	Numerator: {procedureName}=[ENT], {pethidine}=[number] Denominator: {procedureName}=[ENT]  Conditions: Exclude where{pethidine}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}<[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	integer	per endoscopist	≤ 50mg Pethidine
<b>Median dose (age ≥70) Pethidine</b>	ENTPGT70	Median dose of pethidine administered when used for OGD by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	{procedureName}=[ENT], {pethidine}=[number] Denominator: {procedureName}=[ENT] Conditions: Exclude where{pethidine}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}≥[70] Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatetype}= [x]to[y]	integer	per endoscopist	≤ 25 mg Pethidine

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	JAG standards
<b>Median dose (age &lt;70) Fentanyl</b>	ENTFLT70	Median dose of fentanyl administered when used for OGD by a stated endoscopist or at a stated site in a stated period in patients less than 70 years of age.	{procedureName}=[ENT], {fentanyl}=[number] Denominator: {procedureName}=[ENT]  Conditions: Exclude where{fentanyl}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}<[70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]	integer	per endoscopist	(≤100mcg Fentanyl)
<b>Median dose (age ≥70) Fentanyl</b>	ENTGT70	Median dose of fentanyl administered when used for OGD by a stated endoscopist or at a stated site in a stated period in patients 70 years of age or older.	{procedureName}=[ENT], {fentanyl}=[number] Denominator: {procedureName}=[ENT]  Conditions: Exclude where{fentanyl}=[null] Exclude where [proc_dose_propofol]=Yes OR [proc_general_anaes]=Yes {age}≥ [70]  Levels: By {site}=[x] or By {professionalbodycode}=[x] In time period {Ukdatatype}= [x]to[y]	integer	per endoscopist	(≤ 50 mcg Fentanyl)

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	JAG standards
Proportion with GA or propofol	ENTGAPR	Percentage of Enteroscopy procedures performed with GA or propofol	{procedureName}=[ENT] {proc_dose_propofol}=[Yes] or {proc_general_anaes}=[yes]. Numerator= {procedureName}=[ENT]	integer		
Greater than recommended dose	ENTGTRD	Percentage of OGD performed by a stated endoscopist or at a stated site in a stated period where the dose of midazolam exceeded 5mg in patients aged <70 and 2.5mg in patients aged ≥70	{procedureName}=[ENT]  Age <70 {midazolam}>5mg {procedureName}=[ENT]  Age <70 {midazolam}>5mg  Age ≥70 {midazolam}>2.5mg	integer	per endoscopist	
Checklist completion	ENTCC	Percentage of ENT procedures where checklist completed before procedure	{procedureName}=[ENT] Numerator: {Proc_Checklist}=[Yes] denominator: {procedureName}=[ENT]	integer		

KPI	Abbreviation	Definition	Data fields	Output format	JAG audit	JAG standards
<b>Proportion by technique</b>	ENTTECH	Percentage of procedure by technique	Table of percentage of procedures by technique (push, single balloon oral, double balloon oral, spiral, single balloon oral, single balloon anal, other)	integer	put in KPI activity/ demographic tab	
<b>Maximum depth of insertion recorded</b>	ENTMAXD	Percentage of procedures where maximum depth of insertion recorded	{procedureName}=[ENT] numerator- {Proc_Entdepthofinsertion} not recorded. Denominator- {procedureName}=[ENT]	integer		
<b>Tattoo placed at maximum depth of insertion</b>	ENTTAT	Percentage of procedures where tattoo placed at maximum depth of insertion.	{procedureName}=[ENT] {Proc_TattooMaxDepthInsertion}=[yes], denominator - {Proc_TattooMaxDepthInsertion}=[yes] or [No]. Exclude if {Proc_TattooMaxDepthInsertion}=[not applicable].	integer		