Supplementary

Table S1 Example of original free-text report and conversion to structured report by GPT-3.5 and GPT-4

Original free-text report	Structured report: GPT-3.5	Structured report: GPT-4
• Exam: brain, chest, abdomen CT • Technique: examination performed with multi-slice spiral technique, before and after intravenous administration of non-ionic iodinated contrast medium. Class of dose: IV • Brain: no evidence of pathologic contrast enhancement within the cranium. Supratentorial ventricular system normal in size and shape. No midline shift. Cerebrospinal fluid spaces in the vault and base are within normal limits • Thorax: two unchanged lung nodules in the apical segment of the left upper lobe, measuring 6 and 8 mm in diameter. Focal occlusion of a subsegmental bronchus in the lateral segment of the right middle lobe, likely due to mucus plug. Diffuse thickening of bronchial walls. No pleural or pericardial effusion. Unchanged tiny lymph nodes with a short axis <1 cm located in the upper anterior mediastinum and upper and lower right paratracheal regions. The lymph node in the left supraclavicular fossa, measuring 10 mm, remains stable; tiny lymph nodes with a diameter of 5 mm in both cardio-phrenic angles remain unchanged • Abdomen: sequelae of hysterectomy, omentectomy, and peritonectomy. Substantial stability of the globular appearance of the vaginal stump, presenting a pseudonodular morphology and measuring 24 mm × 17 mm in the left side, not separable from prolapsed mid-ileal loops in the Douglas pouch. Thickening of pelvic fascial planes, anterior pararectal fascia, is stable, with a modest increase in pelvic fluid collection. Reduced size of the previously described nodular image in the left internal-external iliac region (9×7 *vs.* 12×12 mm). The solid nodule previously identified in the left mesogastric paramedian region, adjacent to the anterior abdominal wall in the subfascial space, is no longer detectable. In the right paramedian hypogastric region, along the medial margin of the rectus abdominis muscle, there is an enlarged solid nodule, currently measuring 13 mm, contiguous with an additional solid nodule with irregular margins (23 mm in diameter) showing intra-abdominal extension. Micronodular thickening of the mesentery is currently observed, within which there are district fluid collections, with larger findings located in the mid-hypogastric region (23 and 19 mm in diameter), contiguous with the cecal dome, which appears focally retracted, and in the right paracecal region (17 mm in diameter), adjacent to the medial margin of the ascending colon. Additionally, a round lymph node (18 mm in diameter) appears in the left mesenteric region, at the level of a plane passing through the body of L3, surrounded by a slight thickening of the locoregional adipose tissue. Further nodules are present in the adipose tissue of the right paracolic space (13 mm in diameter). Additional solid nodules are seen along the right posterior pararenal fascia (11 mm in diameter) and the homolateral lateroconal fascia (11 mm in diameter), the latter located along the posterior wall of the ascending colon. The pelvic reflection also appears thickened, showing a micronodular appearance, with a more evident finding on the right (12 mm in diameter). The described findings are consistent with disease localization. The presence of fluid collection in the perisplenic region and in the upper third of the left parietocolic space is confirmed. Irregular thickening and diffuse soft tissue edema along the laparotomy scar are also confirmed. In this context, a small periumbilical hernia with adipose content and an initial protrusion of a small bowel loop is observed. The liver is within normal size and morphology. Multiple hypoattenuating bilobar formations in the liver parenchyma are seen, some too small to be characterized, while others of larger size are consistent with cysts (20 mm in diameter) in the V and VI segments, which remain stable. The gallbladder is poorly distended, with biliary sludge. Intrahepatic and extrahepatic bile ducts are not dilated. Portal vein and spleno-mesenteric-portal confluence are patent. No densitometric alterations are observed in the pancreatic and splenic parenchyma. Accessory spleen in the supero-posterior pole (16 mm in diameter). A nodular image (9 mm in diameter) in the supero-lateral left splenic pole remains unchanged as compared to the previous examination and should be reassessed during follow-up. No adrenal masses are present. Kidneys are in situ and within normal size. At the right kidney, the cystic formation (17 mm in diameter) with peripheral linear calcification, remains stable. Additional cysts (15 mm in the upper third of the left kidney and in the lower pole of the right kidney) are unchanged. No dilatation of the urinary tract is observed. Increased size of the lymph node in the celiac region (16 *vs.* 3 mm); previously described lymph nodes in the inter-aortocaval, hepatic peduncle, left paraortic, and bilateral external iliac regions remain stable. Osteosclerotic change at the right iliac bone remains stable	• Exam: brain, chest, abdomen CT • Technique: multi-slice spiral technique. Class of dose: IV • Brain: no evidence of pathological contrast enhancement within the cranium. Supratentorial ventricular system is normal in size, shape, and aligned with the midline. Cerebrospinal fluid spaces in the vault and base are within normal limits • Thorax: two unchanged lung nodules in the apical segment of the left upper lobe, measuring 6 and 8 mm in diameter. Focal occlusion of a subsegmental bronchus in the lateral segment of the right middle lobe. Diffuse thickening of bronchial walls. No pleural or pericardial effusion. Presence of lymph nodes with a short axis <1 cm in the upper anterior mediastinum and upper and lower right paratracheal regions • Abdomen: sequelae of hysterectomy, omentectomy, and peritonectomy. Substantial stability of the globular appearance of the vaginal stump. Enlargement of the previously observed solid nodule, currently measuring 13 mm. Solid nodule with irregular margins (23 mm in diameter) showing intra-abdominal extension. Micronodular thickening of the mesentery. Round lymph node measuring 18 mm in the left mesenteric region. Thickened reflection planes in the pelvis with a micronodular appearance. The liver is within normal size and morphology. Multiple hypoattenuated bilobar formations in the liver parenchyma, some too small to be characterized, while others of larger size are consistent with cysts (20 mm in diameter) in the V and VI segments, remaining stable. Poorly distended gallbladder with biliary sludge. Intrahepatic and extrahepatic bile ducts are not dilated. The portal vein and spleno-mesenteric-portal confluence are patent. No densitometric alterations are observed in the pancreatic and splenic parenchyma. Kidneys are in situ and within normal size	• Exam: brain, chest, abdomen CT • Brain: normal contrast enhancement. Ventricular system is within normal size and alignment. Midline structures are aligned. Cerebrospinal fluid spaces are normal • Thorax: stable lung nodules in the left upper lobe. Focal occlusion of a subsegmental bronchus. Diffuse thickening of bronchial walls. Stable mediastinal lymph nodes • Abdomen: sequelae of surgical interventions. Pseudonodular morphological alterations. Thickening of pelvic fascial planes. Lymphadenopathies. Perisplenic fluid collection and left parietocolic space effusion. Laparotomy scar with peri-umbilical hernia. Liver: presence of cysts, biliary sludge, normal bile ducts. Pancreas and spleen: no densitometric alterations, accessory spleen. Kidneys: cysts, parenchymal incisure, non-dilated urinary tract. Lymph nodes: increased size in the celiac region, stable in other locations. Right iliac bone: stable osteosclerotic change

Small changes were applied to the text while translating from Italian to English to increase readability. GPT, generative pretrained transformer; CT, computed tomography.

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