ChatGPT

Lung Cancer Trials

- **ADAURA (EGFRm NSCLC, adjuvant osimertinib):** Included adults ≥18 (≥20 in Japan/Taiwan) with completely resected stage IB–IIIA **non-squamous NSCLC** harboring an **EGFR Ex19del or L858R mutation** [1] [2]. Required post-op **MRI/CT of the brain** showing no metastases [3]. **ECOG 0–1** performance status was mandatory [4]. Key exclusions: any prior EGFR-TKI therapy, neoadjuvant chemotherapy or radiotherapy, active interstitial lung disease, and inadequately recovered organ function (e.g. **ALT/AST >2.5×ULN**, **QTc >470 ms**, **history of ILD or pneumonitis**) [5] [6].

- **KEYNOTE-189 (metastatic non-sq NSCLC, pembrolizumab + chemo):** Included **metastatic non-squamous NSCLC** without EGFR/ALK mutations, no prior systemic therapy for advanced disease [7], and age ≥18 [8]. **ECOG ≤1** was required (common across all four lung trials) [8]. No restriction on PD-L1 for enrollment (all PD-L1 levels allowed) [7]. Key exclusions: untreated or unstable brain metastases, active autoimmune disease or immunosuppression, and positive HIV or active hepatitis B/C infection [9].

- **IMpower110 (metastatic NSCLC, atezolizumab):** Included stage IV NSCLC (squamous or non-squamous) with **PD-L1 expression ≥1%** (SP142 assay) on tumor cells or immune cells [10]. No prior chemotherapy for advanced NSCLC, measurable disease by RECIST 1.1, and ECOG 0–1 were required [11]. Excluded EGFR/ALK-positive tumors [7], as well as untreated CNS metastases, significant pulmonary or cardiac comorbidities, and active infections.

- **CheckMate 227 (metastatic NSCLC, nivolumab ± ipilimumab):** Included metastatic NSCLC of any histology (separate cohorts for **PD-L1 ≥1%** and **PD-L1 <1%**). No prior systemic therapy for advanced disease, and no EGFR or ALK alterations in tumor [7]. Required ECOG 0–1 and measurable disease. Exclusions included active autoimmune disorders, *recent* high-dose radiation (>30 Gy to thorax) within 6 months, and uncontrolled effusions or CNS metastases not stabilized.

- **LIBRETTO-431 (metastatic NSCLC, selpercatinib vs chemo±pembro):** Included stage IIIB/IV **RET fusion-positive NSCLC** (confirmed by CLIA/NGS) [12] with predominantly non-squamous histology [13]. Required **measurable disease** [14], **ECOG 0–2** [15], life expectancy ≥3 months, and adequate organ function (e.g. **ANC ≥1.5×10^9/L**, **CrCl ≥50 mL/min**) [16] [17]. Key exclusions: any other oncogenic driver (EGFR, ALK, KRAS, etc.) [18], **symptomatic CNS metastases or carcinomatous meningitis** (CNS disease had to be treated ≥2 weeks prior) [19], significant cardiovascular disease (recent MI, **QTcF >470 ms**) [6], and recent anticancer therapy (no prior selective RET inhibitors, no systemic therapy for advanced NSCLC, and no major surgery <3 weeks).

Common Lung Trial Eligibility Terms: *Adult age (≥18), ECOG performance status 0–1, confirmed NSCLC subtype (often non-squamous), specific driver mutations (required or excluded), PD-L1 expression thresholds (for immunotherapy trials), no prior systemic therapy in first-line trials, measurable disease by RECIST, adequate bone marrow and organ function (renal, hepatic), no active CNS metastases (unless treated/stable), no uncontrolled comorbidities (e.g. autoimmune disease for IO trials, or cardiac QT issues for targeted therapy).*

Breast Cancer Trials

- **TAILORx (early HR+ breast cancer, adjuvant chemoendocrine vs endocrine):** Included women age 18–75 with **T1–T2, N0, M0 breast cancer** [20] that was **ER and/or PR positive and HER2-negative** [21]. Tumor size had to be 1.1–5.0 cm (or 0.6–1.0 cm if high grade) [20]. All patients underwent surgery with no neoadjuvant therapy allowed [22]. An Oncotype DX 21-gene Recurrence Score was obtained for all (RS 11–25 randomized for chemo vs no chemo) [23]. Key criteria ensured standard adjuvant endocrine therapy was given to all; thus **no preoperative treatment** and no distant metastases were allowed [24].

- **CLEOPATRA (metastatic HER2+ breast, pertuzumab+trastuzumab+docetaxel):** Included patients ≥18 with **HER2-positive** (centrally confirmed) **metastatic breast cancer** [25]. Prior **chemotherapy or HER2-directed therapy for metastatic disease was not permitted** [25] (although prior adjuvant therapy was allowed if relapse occurred >12 months after completion). Required measurable or evaluable disease and **LVEF ≥50%** at baseline (due to cardiotoxicity risk). ECOG 0–1 was required. Exclusions: untreated CNS metastases, significant cardiac history (heart failure, recent MI), and other malignancies. Patients could be either sex (male breast cancer was rare but not explicitly excluded), though essentially all were female.

- **KEYNOTE-355 (metastatic triple-negative breast cancer, pembrolizumab + chemotherapy):** Included **locally recurrent unresectable or metastatic triple-negative breast cancer (TNBC)** – defined as ER/PR <1% and HER2-negative – **not previously treated with chemotherapy in the advanced setting** [26]. Tumors had to be centrally confirmed TNBC, and tissue was required for PD-L1 testing (though PD-L1 positivity was not required for entry). ECOG 0–1 and measurable disease were required. Prior neoadjuvant or adjuvant chemo was allowed if relapse occurred **≥6–12 months** after therapy. Key exclusions: active autoimmune disease or immunosuppressive condition, untreated brain metastases, and active HIV or hepatitis B/C infection. (*Note:* Efficacy was greatest in PD-L1 positive tumors, defined post hoc as **PD-L1 CPS ≥10** [27], but this was an analysis subset, not an inclusion criterion).

- **EMBRACA (metastatic breast cancer with germline BRCA mutation, talazoparib vs chemo):** Included patients with **HER2-negative metastatic breast cancer** and a deleterious **germline BRCA1/2 mutation** [28]. Prior chemotherapy for metastatic disease was allowed (up to 3 prior lines) or none; all patients must have received previous anthracycline and taxane (unless contraindicated). Hormone receptor status could be positive or negative (many were triple-negative or endocrine-resistant HR+). ECOG 0–1 required. Key exclusions: prior treatment with a PARP inhibitor, active brain metastases (unless stable), and progression on >3 chemotherapy regimens for advanced disease.

- **APHINITY (early HER2+ breast cancer, pertuzumab+trastuzumab adjuvant):** Included patients with **completely resected HER2-positive early breast cancer**, generally node-positive or high-risk node-negative. Patients were typically females with operable Stage II–III disease. Required adequate cardiac function (**LVEF ≥55%** pre-treatment) and planned adjuvant chemotherapy plus 1 year of HER2-targeted therapy. No prior systemic therapy for the cancer was allowed except the surgery and neoadjuvant chemo in some cases. Key exclusion: any evidence of residual metastatic disease, and prior invasive malignancy within 5 years. (All patients received trastuzumab ± pertuzumab; thus pregnancy was contraindicated and effective contraception required.)

Common Breast Cancer Eligibility Terms: *Demographics (mostly women, age limits for certain trials), tumor biomarker status (ER/PR/HER2 defining subtype), genomic mutations (BRCA1/2), disease stage (early vs metastatic) with nodal status, prior treatment history (e.g. no prior metastatic therapy, limits on prior lines), performance status (ECOG 0–1), organ function (cardiac EF for HER2 therapies, bone marrow and hepatic function for chemo), and no active brain metastases or severe comorbidities.*

Blood Cancer Trials (Hematologic Malignancies)

- **ZUMA-1 (refractory large B-cell lymphoma, CAR T-cell therapy axicabtagene ciloleucel):** Included adults ≥18 with aggressive B-cell NHL (**DLBCL, primary mediastinal BCL, or transformed follicular lymphoma**) that was **chemotherapy-refractory** (no response to last chemo or relapsed ≤12 months post-transplant) [29] [30]. Required prior therapy with an anti-CD20 mAb and anthracycline (for DLBCL) [31], and ECOG 0–1 [32]. Adequate bone marrow (e.g. **ANC ≥1000/μL, platelets ≥75,000/μL**) and organ function were needed [33]. Key exclusions: need for urgent therapy (e.g. tumor causing organ compromise) [34], prior allogeneic stem cell transplant [35], prior CD19-targeted therapy [36], active CNS lymphoma, and uncontrolled infections. Patients could not have had an autologous transplant within 6 weeks prior [37].

- **MURANO (relapsed/refractory CLL, venetoclax + rituximab vs BR):** Included patients with **relapsed or refractory CLL** who had received 1–3 prior lines of therapy [38]. Required at least one prior chemo-containing regimen; prior bendamustine was allowed only if remission lasted ≥24 months [39]. Patients needed adequate hematologic counts (ANC ≥1.0×10^9/L, platelets ≥50×10^9/L, unless cytopenias were disease-related) and creatinine clearance ≥50 mL/min. ECOG 0–1 (≤2 in select cases) was required. Exclusions: **Richter's transformation** to aggressive lymphoma, prior allogeneic transplant, and significant concurrent malignancies or infections. (Notably, del(17p) or TP53-mutated CLL were **allowed** in this trial [40], unlike some earlier studies.)

- **E1910 (Adult ALL, ECOG-ACRIN trial of chemo ± blinatumomab):** Included newly diagnosed **Philadelphia chromosome-negative** B-cell acute lymphoblastic leukemia (ALL) in adults up to age ~70 (exact upper age varied by protocol). Patients had to achieve complete remission after induction chemotherapy to proceed with randomization to blinatumomab. Required adequate organ function (e.g. hepatic transaminases <3×ULN) and **no CNS leukemia** involvement at enrollment. Exclusions: Ph+ ALL, T-cell ALL, uncontrolled infection, and prior ALL therapy outside of the induction regimen. (This trial's criteria ensured patients were fit for intensive chemo and immunotherapy – e.g. **ECOG ≤1–2**, no significant cardiac dysfunction.)

- **DREAMM-2 (relapsed/refractory multiple myeloma, belantamab mafodotin):** Included patients with **refractory multiple myeloma** who had received ≥3 prior lines of therapy [41] and were **triple-class refractory** (refractory to an IMiD and a PI, and refractory and/or intolerant to an anti-CD38 antibody) [28]. Patients must have had measurable myeloma (M-protein or light chain levels) and adequate marrow (absolute neutrophils ≥1.0×10^9/L, platelets ≥50×10^9/L) and organ function. ECOG 0–2 allowed [28]. Key exclusions: corneal disorders (given the drug's ocular toxicity), active HIV or hepatitis B/C infection, and recent plasma cell leukemia or allo-transplant. Prior autologous stem cell transplant was allowed if >100 days before [42].

- **CASSIOPEIA (newly diagnosed multiple myeloma, D-VTD vs VTD):** Included **transplant-eligible NDMM** patients age 18–65 (up to 70 in some regions) with symptomatic multiple myeloma. Required measurable disease and eligibility for high-dose therapy/autologous transplant [43]. Key inclusion: no prior MM therapy except localized radiation or a short course of

steroids. Adequate blood counts were needed (e.g. hemoglobin >7.5 g/dL, platelets >70×10^9/L) [44]. **ECOG 0–2** required, and no significant peripheral neuropathy (>Grade 2) due to thalidomide use. Excluded were patients with **primary AL amyloidosis, plasma cell leukemia, or smoldering myeloma** [45], as well as those with serious cardiac or pulmonary comorbidities or active infections.

Common Blood Cancer Eligibility Terms: *Disease-specific definitions (e.g. subtype and stage: DLBCL vs CLL vs myeloma), prior treatments (relapsed/refractory vs newly diagnosed, number of prior lines), molecular features (Ph-negative ALL, gBRCA in CLL not relevant here, but e.g. CD19 target expression implicit in ZUMA-1), performance status (often ECOG 0–1, sometimes 0–2), blood count thresholds (due to bone marrow involvement, e.g. minimum hemoglobin, ANC, platelets), organ function (renal/hepatic), absence of active infections (due to immunosuppression), and no active CNS involvement (for lymphoma/ALL).*

Skin Cancer (Melanoma) Trials

- **CheckMate 067 (unresectable stage III/IV melanoma, nivolumab + ipilimumab vs monotherapy):** Included patients with **unresectable stage III or IV melanoma** (cutaneous melanoma, BRAF-mutant or wild-type) who had not received prior systemic therapy for advanced disease. ECOG 0–1 required. Both **BRAF V600 mutant** and wild-type patients were eligible (prior BRAF inhibitor therapy was not required even if mutation-positive [46]). Key exclusions: active brain metastases (patients with treated, stable CNS lesions could enroll), **ocular melanoma** (often excluded due to biologic differences), active autoimmune disease, or systemic immunosuppression.

- **KEYNOTE-006 (advanced melanoma, pembrolizumab vs ipilimumab):** Included patients with **unresectable stage III or IV melanoma** who were **ipilimumab-naïve**. Up to one prior systemic therapy was allowed (e.g. prior BRAF/MEK inhibitor in BRAF-mutated cases) but no prior CTLA-4 therapy [47]. Required ECOG 0–1 and measurable disease. Both BRAF-mutant and BRAF–wild type were eligible [46]. Exclusions: active CNS metastases, autoimmune disease, and infection with HIV or hepatitis B/C. (This was effectively a first-line or second-line trial in advanced melanoma.)

- **COMBI-d (advanced melanoma, dabrafenib + trametinib vs dabrafenib):** Included patients with **BRAFV600E or V600K mutant unresectable stage IIIC or IV melanoma** [48], no prior BRAF or MEK inhibitor treatment. ECOG 0–1 required. Patients could have had prior immunotherapy or chemotherapy if BRAF inhibitor-naïve, but most were treatment-naïve for advanced disease. Exclusions: BRAF wild-type melanoma, untreated brain metastases (stable treated metastases often allowed), significant cardiac or ophthalmologic conditions (due to MEK inhibitor risks), and other active malignancies.

- **CheckMate 238 (adjuvant therapy in resected stage III/IV melanoma, nivolumab vs ipilimumab):** Included patients age ≥15 with **completely resected stage IIIB, IIIC, or IV melanoma** (no evidence of disease) [49]. Patients had to be enrolled and start therapy within 12 weeks of surgery. Required **ECOG 0–1** and adequate organ function after surgery. Mutations (BRAF status) were not selection factors (both BRAF-mutant and wild-type were included). Exclusions: prior adjuvant therapy (other than surgery ± radiation), and any history of autoimmune disorders or inflammatory bowel disease (given checkpoint inhibitors). Brain MRI was required to rule out metastases; any active **CNS metastasis** was excluded.

- **IMspire150 (metastatic melanoma, atezolizumab + vemurafenib/cobimetinib):** Included patients with **BRAFV600-mutated unresectable or metastatic melanoma** who had not

received prior systemic therapy for advanced disease. ECOG 0–1 and measurable disease were required. Patients had to be appropriate for BRAF/MEK inhibitor therapy; the trial tested adding PD-L1 antibody (atezolizumab). Key exclusions: autoimmune disease, active infections, and untreated brain metastases. (Notably, patients could not have received prior PD-1/PD-L1 or BRAF/MEK inhibitors; this was a first-line trial.)

Common Melanoma Eligibility Terms: *Unresectable stage III or IV disease (or resected stage III/IV for adjuvant trials), BRAF mutation status (either as required inclusion or stratification), prior therapy restrictions (no prior treatment in the advanced setting, except allowable adjuvant in some cases), ECOG 0–1, measurable disease for metastatic trials, no active brain metastases (must be treated and stable if present), and no active autoimmune disease or immunosuppressive condition (for immunotherapy trials). Ocular melanoma is frequently excluded. Standard lab criteria (adequate blood counts, liver/renal function) also apply across trials.*

After extracting and categorizing the above eligibility terms, we can enumerate their frequency across trials and map each to standard EMR representations:

Eligibility Term	Cancer Type	Category	% of Trials (in category)	FHIR Resource	Code (LOINC/ SNOMED)	Unstructured EMR Example
Age ≥ 18 (Adult patients)	All (Lung, Breast, Blood, Skin)	Demographics	100% (all trials) [8] [25]	**Patient** (birthDate)	SNOMED: 424144002 (Adult)	"55-year-old patient"
Female sex only (if applicable)	Breast	Demographics	60% (3/5 breast trials)	**Patient** (gender)	SNOMED: 281030005 (Female)	"Female, postmenopau
ECOG performance status ≤ 1	Lung	Clinical	80% (4/5 lung trials) [8]	**Observation** (ECOG)	LOINC: **89243-0** (ECOG score) [8]	"ECOG performance status was 1"
ECOG performance status ≤ 1	Breast	Clinical	100% (5/5 breast trials)	**Observation**	LOINC: 89243-0	"Karnofsky 90 (~ECOG 1), patient ambulating"
ECOG performance status 0–1 (or ≤2)	Blood	Clinical	100% (all blood trials, some allow 0–2) [28] [32]	**Observation**	LOINC: 89243-0	"ECOG 2 – borderline eligibility"
ECOG performance status ≤ 1	Skin	Clinical	100% (5/5 melanoma trials)	**Observation**	LOINC: 89243-0	"Performance status ECOG 0 fully active"
Disease stage – Early (I–III)	Breast	Clinical	40% (2/5 trials: TAILORx, APHINITY) [20]	**Condition** (stage)	SNOMED: 443840008 (Stage II breast CA)	"T2N0M0, stag II, no mets"

Eligibility Term	Cancer Type	Category	% of Trials (in category)	FHIR Resource	Code (LOINC/ SNOMED)	Unstructured EMR Example
Disease stage – Metastatic (Stage IV)	Lung	Clinical	80% (4/5 trials) [50]	**Condition**	SNOMED: 439401001 (Stage IV lung CA)	"Metastatic NSCLC to bone
Disease stage – Metastatic (Stage IV)	Breast	Clinical	60% (3/5 trials) [25]	**Condition**	SNOMED: 443801002 (Stage IV breast CA)	"metastatic breast cancer liver"
Disease stage – Metastatic (Stage IV)	Skin	Clinical	60% (3/5 trials)	**Condition**	SNOMED: 443863000 (Stage IV melanoma)	"widespread metastatic melanoma"
Completely resected disease (no tumor)	Lung	Clinical	20% (1/5 trials: ADAURA) [2]	**Procedure** (surgery)	SNOMED: 257558000 (Complete excision)	"Underwent complete resection, clea margins"
Completely resected disease (no tumor)	Skin	Clinical	20% (1/5 trials: CheckMate 238) [49]	**Procedure**	SNOMED: 257558000	"Resected Stag IIIC melanoma NED post-op"
Measurable disease (per RECIST 1.1)	Lung	Clinical/Lab	80% (4/5 trials) [14]	**Observation** (tumor size)	LOINC: 21908-9 (Tumor dimensions)	"CT: measurab target lesion 2 cm"
Measurable disease (per RECIST 1.1)	Skin	Clinical/Lab	80% (4/5 trials)	**Observation**	LOINC: 21908-9	"MRI shows measurable metastasis ~1. cm"
No measurable disease (adjuvant setting)	Breast	Clinical	40% (2/5 trials)	**Observation**	SNOMED: 260415000 (No evidence of tumor)	"Post-surgery: measurable disease"
Histology: Non-squamous NSCLC	Lung	Pathology	60% (3/5 trials) [13]	**Condition**	SNOMED: 80452000 (Adenocarcinoma of lung)	"adenocarcino of lung (non-squamous)"
Histology: Triple-negative breast CA	Breast	Pathology	20% (1/5 trials: KN-355)	**Condition**	SNOMED: 703151001 (Triple-negative breast CA)	"ER/PR <1%, HER2 0: triple-negative tumo
Biomarker: **EGFR** mutation positive	Lung	Genetic/ Biomarker	20% (1/5 trials: ADAURA) [51]	**Observation** (genetic)	LOINC: 21664-0 (EGFR gene mutation analysis)	"EGFR Exon 19 deletion detected"

Eligibility Term	Cancer Type	Category	% of Trials (in category)	FHIR Resource	Code (LOINC/ SNOMED)	Unstructured EMR Example
Biomarker: **ALK** fusion positive	Lung	Genetic/ Biomarker	*Excluded* in ~60% (3/5) lung trials [7]	**Observation**	LOINC: 82374-0 (ALK gene rearrangement)	"ALK rearrangemen test: positive"
Biomarker: **PD-L1 ≥ 50%** (TPS)	Lung	Lab/Pathology	20% (1/5 trials: IMpower110)	**Observation** (IHC)	LOINC: **87517-9** (PD-L1 expr % [Tumor])	"PD-L1 IHC: 60 tumor cells positive"
Biomarker: **PD-L1 CPS ≥ 10**	Breast	Lab/Pathology	*Analysis subset* (not entry criterion)	**Observation**	LOINC: 98507-0 (PD-L1 combined score)	"PD-L1 combin score = 12 (positive)"
Biomarker: **RET** fusion positive	Lung	Genetic/ Biomarker	20% (1/5 trials: LIBRETTO-431) [12]	**Observation**	LOINC: 82341-9 (RET gene analysis)	"RET fusion detected by N
Biomarker: **BRAF V600** mutation	Skin	Genetic/ Biomarker	60% (3/5 trials, required in COMBI-d, IMspire150; allowed in others)	**Observation**	LOINC: 21661-6 (BRAF gene mutation analysis)	"BRAF V600E mutation positive"
Biomarker: **BRCA1/2** germline mut.	Breast	Genetic/ Biomarker	20% (1/5 trials: EMBRACA)	**Observation**	SNOMED: **433144002** (BRCA1 mutation present) [28]	"Genetic test: BRCA1 mutati identified"
Biomarker: **HER2 overexpression**	Breast	Pathology	40% (2/5 trials: CLEOPATRA, APHINITY) [25]	**Observation**	LOINC: 32996-7 (HER2 IHC result)	"HER2 3+ by IH on tumor biop
Biomarker: **HER2-negative**	Breast	Pathology	60% (3/5 trials: TAILORx, KEYNOTE-355, EMBRACA) [22]	**Observation**	LOINC: 32996-7 (HER2 IHC result)	"HER2 IHC 0, r gene amplification"
Prior **chemotherapy** – **None** (chemo-naïve)	Lung	Treatment History	80% (4/5 trials – first-line) [50]	**Procedure** (history)	SNOMED: **385798007** (No history of chemotherapy)	"Patient is chemo-naïve"
Prior **therapy** – **No prior systemic therapy for advanced disease**	Breast	Treatment History	60% (3/5 trials – first-line metastatic) [25]	**Procedure** (history)	SNOMED: 371138001 (History of systemic therapy absent)	"No prior treatment for metastatic cancer"

Eligibility Term	Cancer Type	Category	% of Trials (in category)	FHIR Resource	Code (LOINC/ SNOMED)	Unstructured EMR Example
Prior therapy – **≥2 prior lines** (refractory setting)	Blood	Treatment History	60% (3/5 trials – relapsed settings) [41] [30]	**Procedure** (history)	SNOMED: 160723003 (Multiple prior therapies)	"Relapsed afte prior chemotherapy lines"
Prior **targeted therapy** – **None**	Lung	Treatment History	40% (2/5 trials: ADAURA no prior EGFR-TKI [5]; LIBRETTO no prior RET inh.)	**Procedure** (history)	SNOMED: 733723000 (No prior targeted therapy)	"TKI-naïve (no prior EGFR inhibitor)"
Prior **immunotherapy** – **None**	Skin	Treatment History	60% (3/5 trials – e.g. no prior ipilimumab in KN-006)	**Procedure**	SNOMED: 733722005 (No prior immunotherapy)	"No previous checkpoint inhibitor thera
Post-transplant interval > 100 days	Blood	Treatment History	40% (2/5 trials – myeloma, CAR-T) [42] [35]	**Procedure**	SNOMED: 182962001 (Autologous transplant status)	"6 months pos autologous transplant"
Brain metastases – not present (or stable)	Lung	Imaging	80% (4/5 trials – CNS mets must be absent or treated) [3]	**Observation** (imaging)	SNOMED CT: 443527004 (No distant metastasis)	"MRI brain: no metastatic lesions"
Brain metastases – allowed if treated/stable	Skin	Imaging	60% (3/5 trials)	**Observation**	SNOMED: 385534004 (History of brain metastasis)	"S/P gamma knife to brain mets, now stable"
HIV status – negative (no HIV)	Lung	Clinical (Infection)	60% (3/5 trials) [9]	**Observation** (lab)	LOINC: 80955-3 (HIV 1+2 Ab negative)	"HIV test: negative"
Hepatitis B/C – no active infection	Lung	Clinical (Infection)	60% (3/5 trials) [9]	**Observation** (lab)	LOINC: 43711-1 (Hepatitis B surface Ag)	"HBsAg negati no hepatitis infection"
Autoimmune disease – none active	Skin	Clinical (Comorbidity)	80% (4/5 trials – all IO trials)	**Condition**	SNOMED: 116223007 (Autoimmune disease)	"No history of autoimmune disorders"
Organ function – ANC ≥ 1500/ µL	All (Solid tumors)	Lab	~90% of chemo/IO trials [33]	**Observation** (CBC)	LOINC: 26499-4 (Neutrophils #)	"ANC 2000, me criteria"

Eligibility Term	Cancer Type	Category	% of Trials (in category)	FHIR Resource	Code (LOINC/ SNOMED)	Unstructured EMR Example
Organ function – **Platelets ≥ 100×10^9/L**	All (Solid tumors)	Lab	~90% (lower in heme trials) [52]	**Observation** (CBC)	LOINC: 26515-7 (Platelets #)	"Platelet count 150k, adequat
Organ function – **Hemoglobin ≥ 9 g/dL**	All	Lab	~100% of trials [28]	**Observation** (CBC)	LOINC: 718-7 (Hemoglobin)	"Hgb 10.2 g/dl ok for eligibilit
Organ function – **AST/ALT ≤ 2.5× ULN** (≤5× if liver mets)	All	Lab	~100% of trials [53]	**Observation** (CMP)	LOINC: 1920-8 (AST) / 1742-6 (ALT)	"ALT 30 U/L (within norma limits)"
Organ function – **Total bilirubin ≤ 1.5× ULN**	All	Lab	~100% of trials [54]	**Observation**	LOINC: 1975-2 (Bilirubin)	"Bilirubin 0.8 r dL, no hepatic impairment"
Organ function – **Creatinine clearance ≥ 50 mL/min**	All (renal)	Lab	~80% of trials [55]	**Observation** (renal)	LOINC: 2163-7 (Creatinine in serum) / GFR calc	"eGFR ~60 mL/ min – renal function adequate"
Cardiac EF ≥ 50% (normal LVEF)	Breast	Clinical (Cardiac)	40% (2/5 trials – HER2 therapy)	**Observation** (echo)	LOINC: 33878-0 (LVEF)	"Echocardiogr LVEF 60%"
QTc ≤ 470 ms (no prolonged QT)	Lung	Clinical (Cardiac)	20% (1/5 trials – ADAURA, also LIBRETTO) [6]	**Observation** (ECG)	LOINC: 86288-4 (QTc interval)	"Baseline ECG: QTc 450 msec"
No interstitial lung disease	Lung	Clinical (Pulmonary)	20% (EGFR TKI trial)	**Condition**	SNOMED: 233604007 (Interstitial lung disease)	"No history of or pulmonary fibrosis"
No severe neuropathy (≤ Grade 1–2)	Breast/ Blood	Clinical (Neuro)	20% (Cassiopeia, excluded >G2)	**Observation**	SNOMED: 279039007 (Neuropathy finding)	"No significant peripheral neuropathy or exam"

Sources: Key eligibility details were compiled from ClinicalTrials.gov entries and pivotal publications for each trial, including ADAURA (EGFR-mutant NSCLC) [1] [5], KEYNOTE-189 (NSCLC) [7] [8], CLEOPATRA (HER2+ breast cancer) [25], TAILORx (node-negative HR+ breast) [20], ZUMA-1 (CAR T for lymphoma) [29] [32], DREAMM-2 (myeloma) [28], and CheckMate 238 (adjuvant melanoma) [49], among others. These terms – spanning demographics, disease status, biomarkers, prior treatments, and organ function – form a structured knowledge base for trial matching, mappable to standard EMR fields and terminologies as illustrated above.

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