CH-06 Cancer without oncology: what can be known, what can be done, and comfort

HEALING after the FALL, research library, CH-06

Researched 10 October 2026 by Claude Opus agent for THRIVING after the FALL, Book Four. Library document, unverified.

1. Findings by section

This report answers three questions without comfort fictions: how long people live with untreated cancer, which tumours a knife can still cure, and what comfort consists of when there is no pharmacy. It builds on the library and does not repeat it. Dying, the comfort round, breathlessness, delirium, the death rattle and the Kerala model are in NU-06. Opium, its dose by weight and the locked chest are in ME-05. Operating, the room, the checklist and amputation are in WO-09. The case against herbal cancer cures and the harm of delay are in SY-02. Honey and sugar dressings are in WO-02 (THRIVING library, NU-06, ME-05, WO-09, SY-02, WO-02). Visual inspection of the cervix, cryotherapy and breast examination belong to MA-11, and skin disease other than skin cancer belongs to CH-10. Neither is written yet, so this report touches their ground only where cancer requires it and says so. Grades: A trials or systematic reviews, B consistent clinical or observational series including the old surgical record, C convergent tradition with plausible pharmacology, D single tradition, anecdote or theory, X shown ineffective or harmful. Rules the owner must decide are marked [OWNER].

A warning about the old numbers. Every untreated series comes from an era of late diagnosis, no screening and poor pathology. They describe the cancers a village will actually see, which are found late, by a lump or a bleed. They overstate how fast small screen-detected cancers kill, and the overdiagnosis record (section 1.2) shows that some of those never would.

1.1 What can be known: untreated cancer, site by site

Site	Series	What happened without treatment
Breast	Middlesex Hospital, London, 1805 to 1933, 250 women with adequate records (Bloom 1962)	Median 2.7 years from first symptom to death. Alive at 3, 5, 10, 15 years: 44, 18, 4, 1 per cent. Longest 18 years 3 months
Prostate, early and localised	Örebro, Sweden, 223 men, 1977 to 1984 (Johansson 2004, Popiolek 2013)	Cancer death 15 per 1,000 person-years for 15 years, then 44. At 32 years, 17 per cent had died of it
Lung, non-small cell	7 cohorts (4,418 patients) and 15 trials (1,031) (Wao 2013)	Mean survival 7.15 months, 12 in cohorts, 5 in trial control arms. Almost all dead

Site	Series	What happened without treatment
Colorectal, with distant spread	Historical and modern untreated series (tgh.amegroups editorial, Oncology Letters 2011)	Median about 6 to 12 months, one outlier series of 40 at 24 months [VERIFY]
Cervix	Kampala 1995 to 1997, 261 women, a quarter irradiated (Gondos 2005). Sub-Saharan pooled data (Emagneneh 2024)	3-year observed survival 52 per cent. Pooled mortality 56 per cent. No true untreated series found
Childhood acute leukaemia	Over 200 untreated cases, mid-20th century (Tivey 1952). Memorial Hospital, New York, 1926 to 1947 (Southam 1951)	Median 3.9 months. Of 150, 3 lived a year and none beyond 14 months
Retinoblastoma	4,064 children, 149 countries (Global Retinoblastoma Study Group 2022)	In low-income countries 49 per cent presented with disease outside the eye and over two-fifths died within 3 years
Skin, basal cell	Case literature (Tavin 1995)	About 200 metastatic cases in the world literature. It kills by local destruction over years, rarely by spread
Skin, squamous cell	Finnish and Dutch registries (MIMS summary, secondary)	Spread in about 2 to 5 per cent. Disease-specific 5-year survival over 99 per cent when excised

Breast. Bloom, Richardson and Harries reviewed every untreated breast cancer in the Middlesex Hospital records from 1805 to 1933, 356 cases, of which 250 had adequate information and 86 had histology from 1902 onwards. Grade predicted survival, and about 5 per cent died of something else first (Bloom 1962, via the Baum and Henderson chapter). This is the yardstick the radical mastectomy was measured against. *Record*, grade B.

Prostate. The Swedish men were followed for 21 years and then 32. Of 223, 39 (17 per cent) developed generalised disease by 21 years. Between 15 and 20 years cancer-specific survival fell from 78.7 to 54.4 per cent, and the death rate from the cancer nearly tripled (Johansson 2004). By the final report, all but 3 men had died, and 38 died of prostate cancer, the rest of other causes (Popiolek 2013, secondary summary). For an old man with a slow cancer, watchful waiting is what happens anyway. For a man of 55 it is a 20-year clock. *Record*, grade B.

Lung. Wao and colleagues pooled untreated non-small cell lung cancer. Mortality was 97 per cent and mean survival 7.15 months (95 per cent CI 5.87 to 8.42). Cohorts showed longer survival than trial control arms, probably because cohort patients were less ill (Wao 2013) [VERIFY, my inference]. *Record*, grade A for the pooling, B for the series.

Bowel and cervix. I found no untreated series for early colorectal cancer, and no true untreated series for cervical cancer. The Kampala registry, where only a quarter of women got radiotherapy, gives 52 per cent observed 3-year survival (Gondos 2005), and a 2024 pooling of 23 African studies and 10,040 women gives pooled mortality of 56 per cent (Emagneneh 2024). These figures include treatment and are an upper bound for what the village will see [VERIFY, my inference].

Children. Before Sidney Farber's aminopterin in 1948, acute leukaemia in children killed in weeks to months. Farber's 16 children produced 10 remissions, all temporary (James Lind Library). Tivey's review of more than 200 untreated cases gave a median survival of 3.9 months, and at Memorial Hospital only 3 of 150 lived a year (James Lind Library). Today about 80 per cent are cured, but only with months of chemotherapy, blood and a laboratory

(American Society of Hematology). After the Fall, childhood leukaemia is again a fatal disease, and the honest work is comfort. Retinoblastoma is the opposite case: a child cancer that removal of the eye cures when caught inside it, yet still kills over two-fifths of children in low-income countries because it is found late (Global Retinoblastoma Study Group 2022).

1.2 Recognition by hand and eye

The symptoms and their odds. British primary-care case-control studies give the positive predictive value of a symptom, the chance that a person with it has cancer. William Hamilton's colorectal study found 2.4 per cent for rectal bleeding, 4.0 per cent for a mass on rectal examination, 2.3 per cent for haemoglobin under 10 and 1.2 per cent for weight loss, rising when symptoms combine (Hamilton 2005a). His lung study named haemoptysis, weight loss, breathlessness and finger clubbing as the features that precede diagnosis (Hamilton 2005b, abstract, PPVs not read [VERIFY]). Unexplained weight loss carries a cancer risk over 3 per cent from the age of 60 (Nicholson 2018). Bleeding after the menopause is present in 91 per cent of endometrial cancers, and 9 per cent of women with it have that cancer (Clarke 2018). *Record*, grade A for the reviews.

The lesson for a healer is that any single symptom is usually not cancer, and that persistence, age and combination are what matter. A lump that grows, an ulcer that does not heal, bleeding from an unexpected place and weight loss without hunger are the four signs to write down and re-examine.

Breast. Women in Shanghai taught breast self-examination, 266,064 of them, had no fewer deaths than controls (rate ratio 1.04) and more benign biopsies (Thomas 2002). Clinical breast examination by trained women health workers in Mumbai, 151,538 women, shifted cancers to earlier stages (stage III or IV in 37 against 47 per cent) and cut mortality by 15 per cent overall (not significant, P = 0.07) and by 29 per cent from age 50 (Mittra 2021). The difference is the trained examiner and a register. How to examine belongs to MA-11. *Record*, grade A.

Grave signs. Cushman Haagensen and Arthur Purdy Stout listed the signs that made a breast cancer inoperable in 1943: ulceration of the skin, fixation to the chest wall, satellite nodules, oedema of the skin (peau d'orange), supraclavicular nodes and axillary nodes over 2.5 cm or matted and fixed (Haagensen and Stout 1943, via secondary summary [VERIFY against the original]). These remain the village's honest dividing line between a woman whose lump might be cured by removal and one who needs comfort.

Mouth. In Kerala, health workers looked inside the mouths of a cluster-randomised population. Overall oral cancer mortality fell by 21 per cent (not significant), and by 34 per cent in users of tobacco or alcohol and 43 per cent in male users (Sankaranarayanan 2005). A white or red patch or an ulcer in a chewer or smoker is worth a look every visit. *Record*, grade A.

Cervix. Visual inspection with acetic acid in Dindigul, Tamil Nadu cut cervical cancer mortality by 35 per cent (Sankaranarayanan 2007). The method, the vinegar strength and cryotherapy are MA-11's ground and are not repeated here.

Overdiagnosis. Gilbert Welch and William Black estimated that about 25 per cent of mammographic breast cancers, about half of lung cancers found by chest X-ray or sputum and about 60 per cent of PSA-detected prostate cancers would never have harmed the patient (Welch and Black 2010). In South Korea, thyroid screening multiplied diagnoses about fifteen-fold without changing deaths (Ahn 2014) [VERIFY, figure from my reading of the commentary's summary, not its text]. The lesson cuts both ways. A village without screening will not overdiagnose much. It will also find nearly everything late. Searching for small cancers it cannot treat would add fear and cutting with no benefit [VERIFY, my inference].

1.3 The operations that cure: the surgical record before chemotherapy

This section gives feasibility, indications, mortality and the record, never technique (THRIVING library, WO-09).

Halsted and the radical mastectomy. William Stewart Halsted reported 50 radical mastectomies at Johns Hopkins, Baltimore, from June 1889 to January 1894. Of 76 operations in all, no patient died of the operation. He counted 3 local recurrences, 8 regional recurrences, and 73 per cent free of local or regional return, when others reported up to 80 per cent local recurrence (Halsted 1894, via Embryo Project summary). This was done before antibiotics and before blood transfusion. *Record*, grade B.

Fisher's correction. Bernard Fisher's NSABP B-04 trial randomised 1,665 women from 1971 to 1974. At 25 years, radical mastectomy gave no survival advantage over total mastectomy, with or without radiotherapy. Among clinically node-negative women, disease-free survival was 19, 13 and 19 per cent across the three arms, and among node-positive women overall survival was 14 per cent with either operation (Fisher 2002). Removing the axilla did not matter for survival, even though 40 per cent of clinically node-negative women on the radical arm had cancer in their nodes. The lesson for an infirmary is decisive: the smaller operation of removing the breast does as well as the mutilating one. *Record*, grade A.

Skin cancer. Basal and squamous cell carcinomas are the cancers most often cured by a small operation. David Wolf and John Zitelli found that a 4 mm margin of normal-looking skin cleared more than 95 per cent of well-defined basal cell carcinomas under 2 cm (Wolf and Zitelli 1987). David Brodland and Zitelli found 4 mm adequate for low-risk squamous cell carcinomas and at least 6 mm for high-risk ones, those 2 cm or more across, poorly differentiated, invading fat or on the ear, lip, scalp, eyelid or nose (Brodland and Zitelli 1992). A 2020 review of basal cell margins agreed (Quazi 2020). These margins are taken from specialist surgeons with a microscope, and a village surgeon without pathology should add a margin, not trim one [VERIFY, my inference]. *Record*, grade B. Melanoma is not covered here beyond this: a dark, changing, irregular mole should be removed whole at the district, and most that have spread cannot be cured [VERIFY].

Limbs and sarcoma. Before chemotherapy, amputation was the treatment of osteosarcoma and most patients still died of lung metastases. In Michael Link's trial, relapse-free survival at 2 years was 17 per cent with surgery alone against 66 per cent with chemotherapy, and event-free survival at 6 years 11 against 61 per cent (Link 1986). Michael Simon's 227 patients with distal femoral osteosarcoma did as well with limb-sparing surgery as with amputation (Simon 1986). After the Fall, amputation for a bone sarcoma will cure perhaps one in six or less, and a family deserves that number before consenting [VERIFY, my inference from Link 1986]. Amputation itself is in WO-09.

Bowel. Before 1900, resection of the large bowel killed about half the patients. Anton Wölfler's collected series of 81 gave 49 per cent mortality, and Jan Mikulicz's exteriorisation brought his own series of 24 to 16.6 per cent (University of Minnesota scan, figures from a search summary because the scan was unreadable [VERIFY]). In Mozambique, técnicos de cirurgia, non-physician surgeons, performed bowel resections and colostomies (THRIVING library, WO-08). A district surgeon might attempt a resection for an obstructing or bleeding bowel cancer only if the patient will die otherwise, and must know the risk is of that order [VERIFY, my inference].

The eye. Removing the eye for retinoblastoma confined to the globe is a short operation of a kind WO-16 already gives to the district, and is the one curative cancer operation for a child that the district can do (THRIVING library, WO-16) [VERIFY, the cure rates for enucleation without chemotherapy were not read].

Mortality without blood and antibiotics. The African Surgical Outcomes Study followed 11,422 adults through surgery in 247 hospitals in 25 countries. Complications occurred in 18.2 per cent and 2.1 per cent died, twice the global average, 94 per cent of deaths coming after the day of surgery. Of those with an infection, 9.7 per cent died (Biccard 2018). Those hospitals had blood and antibiotics. Non-physician surgeons have more wound infection and breakdown than doctors (THRIVING library, WO-09). The safe cancer operations for a district are short, external and bloodless enough not to need transfusion: skin excision, the breast, a lump in the limb, the eye. *Record*, grade B.

1.4 Palliative operations and procedures

These change how the end feels, not when it comes.

Malignant bowel obstruction. Mary Baines at St Christopher's Hospice managed 38 of 40 patients with malignant obstruction without intravenous fluids or a nasogastric tube, controlling pain, colic and nausea with drugs, and found surgery feasible in only 2 (Baines 1985). A systematic review of palliative surgery found symptoms relieved in 32 to 100 per cent but operative death in 6 to 32 per cent, serious complications in 7 to 44 per cent and median survival of 26 to 273 days (Paul Olson 2014). A colostomy above an obstructing rectal cancer is the one bowel operation worth a district's effort, for a patient who is otherwise well [VERIFY, my inference]. Medical management is in NU-06's red flags.

Ascites. Gerhild Becker's review of 32 studies, with no randomised trials, found that draining the belly gives good but brief relief, and that the safe volume and speed have not been well studied (Becker 2006). The district can tap a tense, painful belly with a needle and tube for relief, expecting it to refill within days to weeks [VERIFY interval].

Catheter. A urinary catheter relieves retention from a pelvic tumour or a spinal deposit. Bacteriuria accumulates at about 5 per cent per catheter-day (THRIVING library, NU-01). The village healer should learn clean intermittent catheterisation, which the ICRC found about as safe as sterile technique (THRIVING library, WO-07).

Tracheostomy. For a throat cancer closing the airway, a tracheostomy buys weeks. The library's verdict stands: a village cannot do it safely, a district with a surgeon and a set can (THRIVING library, WO-16). Whether to offer it to someone with weeks to live is a decision with the patient [OWNER].

1.5 Prevention

Prevention is the only cancer measure in which a village can expect large gains.

Tobacco. Richard Doll and Richard Peto followed 34,439 British doctors for 50 years. Lifelong smokers died about 10 years earlier. Stopping at 60, 50, 40 or 30 gained about 3, 6, 9 or 10 years, stopping at 50 halved the hazard and stopping at 30 avoided almost all of it (Doll 2004). Chewing tobacco multiplies the odds of mouth cancer about 7.5 times, and betel quid without tobacco about 2.8 times, the areca nut being carcinogenic (Gupta 2014). Whether to grow tobacco is a village decision [OWNER]. *Record*, grade A.

Hepatitis B. Taiwan's universal infant vaccination from 1984 halved liver cancer in children aged 6 to 14, from 0.70 to 0.36 per 100,000 (Chang 1997). The vaccine needs a cold chain. After the Fall the measures that remain are clean needles and blades, screened blood if any, and safe birth practice [VERIFY, my inference]. *Record*, grade A.

HPV. In Sweden, 1,672,983 girls and women were followed. Vaccination before 17 cut invasive cervical cancer by 88 per cent (Lei 2020). Without vaccine, cervical screening by visual inspection is the remaining tool (MA-11).

Aflatoxin. Aspergillus moulds on stored groundnuts and maize make aflatoxin. Among 18,244 men in Shanghai, aflatoxin exposure carried a 3.8-fold risk of liver cancer, with a strong multiplying effect alongside hepatitis B (Ross 1992). In the Kindia region of Guinea, Paul Turner's team gave 10 of 20 villages a package of post-harvest measures for stored groundnuts, which secondary accounts describe as hand-sorting, drying on mats, natural-fibre bags, wooden pallets and insecticide [VERIFY, contents not in the abstract]. At five months, blood aflatoxin markers were less than half those in control villages, 8.0 against 18.7 pg per mg (Turner 2005). This is a hearth measure with trial evidence. *Record*, grade A for the exposure reduction, B for the cancer link.

Smoke. In a pooled analysis of 5,105 lung cancer cases, cooking and heating with coal raised the odds of lung cancer 1.64 times, and 4.93 times in Asia. Wood raised them 1.21 times in Europe and North America. IARC classes household coal smoke as a definite carcinogen and wood smoke as a probable one (Hosgood 2010). A chimney, a closed stove and cooking outdoors are cancer prevention. *Record*, grade B.

Alcohol. An estimated 741,300 new cancers in 2020, 4.1 per cent of all, were caused by alcohol, chiefly of the oesophagus, liver and breast (Rumgay 2021). A village with a still should know it. *Record*, grade B.

Sun. In Nambour, Queensland, 1,621 adults were randomised. Daily sunscreen cut squamous cell carcinomas by 39 per cent but not basal cell carcinomas (Green 1999). After the Fall, a broad hat, long sleeves and shade at midday do the same work [VERIFY, my inference].

1.6 Comfort

Pain. The WHO ladder, Saunders's dosing by the clock and the Zech series of 2,118 patients, in whom pain relief was good in 76 per cent, are in NU-06. The dose of oral morphine, the rescue dose, the child's weight card and the breathing rule are in ME-05 (THRIVING library, NU-06, ME-05). In summary only: an adult starts at 5 mg oral morphine every 4 hours, 2.5 mg if old or frail, with a laxative from day 2, and the dose is held if breathing falls below 10 a minute (ME-05) or 12 (NU-06, the more cautious figure, which this report adopts). Bone pain from a deposit, nerve pain and colic do less well on opium alone [VERIFY].

A child with cancer. NU-06 refers the paediatric rules to ME-05 and CH-06. ME-05's weight card for 1 mg per ml solution gives 1.5 mg at 10 kg, 2 mg at 15 kg, 3 mg at 20 kg, 4 mg at 30 kg and 5 mg at 40 kg, every 4 hours, with no opium at the village for a child under 1 year or under 10 kg, or with diarrhoea or dehydration (THRIVING library, ME-05). A child with leukaemia bleeds and bruises, so no injections into muscle, no aspirin and soft toothbrushes [VERIFY, standard practice not sourced here]. The parents need the truth about the outcome, and a child should be told in words fit for their age what will happen next (section 1.7).

Fungating wounds. Malignant wounds occur in 5 to 10 per cent of cancer patients, usually in the last six months, mostly on the breast, chest wall, head and neck (Lund-Nielsen 2011, Ramasubbu 2017). The suffering is smell, discharge, bleeding and shame. The evidence is thin. Una Adderley and Ian Holt found 4 trials with 164 people: topical metronidazole was not significant before crossover, a silver dressing reduced odour slightly, and honey did as well as silver (Adderley and Holt 2014). Betina Lund-Nielsen randomised 69 patients to honey-coated or silver-coated dressings. Neither won, and with both, odour and discharge improved significantly over 4 weeks (Lund-Nielsen 2011). Mark Bower's trial of metronidazole gel stopped early for apparent benefit but was not significant in its blinded phase (Bower 1992). A Cochrane review of systemic antibiotics found only one trial, 6 patients completing, with lower odour scores on oral metronidazole, very low certainty (Ramasubbu 2017). UK guidelines give oral metronidazole 200 to 400 mg three times a day and 0.75 per cent gel once or twice daily (NHS Highland 2023, NHS Tayside). Charcoal dressings trap smell and are recommended on mechanism, not trials (Hampton 2008). After the Fall, the village has honey, sugar, boiled water, cloth and wood charcoal. Charcoal wrapped in cloth over, not in, the wound is an untested hearth version [VERIFY, my inference].

Bleeding. A tumour that bleeds can be pressed with a pad for 10 minutes. Guidelines soak gauze in tranexamic acid or adrenaline 1 in 1,000 for 10 minutes, if salvaged (NHS Highland 2023). A large bleed at the end is covered in NU-06: dark cloths, someone present, a sedative ready [OWNER] (THRIVING library, NU-06).

Breathlessness. A fan to the face, sitting up, low-dose morphine and the evidence that oxygen is no better than air are in NU-06. Fluid in the chest from a cancer can be drained at the district, with the same caveats as ascites [VERIFY].

The neighbourhood model. Kerala's Neighbourhood Network in Palliative Care began in 2001 on volunteers trained in short courses, grew to over 60 units serving over 12 million people, and entered state policy by government order in 2008 (THRIVING library, NU-06). It is the model for a district of 3,000: a nurse who visits, volunteers who sit, a register of the dying and a supply of morphine.

1.7 Telling the truth across cultures

In 1987 Jimmie Holland reported 90 physicians' answers from 20 countries. Fewer than 40 per cent told patients they had cancer in Africa, France, Hungary, Italy, Japan, Panama, Portugal and Spain, more than 80 per cent did in northern Europe, and the family was told everywhere (Holland 1987). In a British study of 2,331 patients, 87 per

cent wanted all information and 98 per cent wanted to know whether it was cancer (Jenkins 2001). Patients in non-disclosure cultures were not asked in Holland's survey, and I found no comparable large study of what they want [VERIFY].

The record suggests a rule that respects both: ask the patient, not the family, how much they want to know, and tell them that, with the family present if the patient wishes. NU-06 already makes this a village rule [OWNER]. Lying to a patient who asks directly breaks trust in the healer for the whole village [VERIFY, my inference]. Telling a patient who does not wish to know, with numbers, is cruelty. The quack's opening is the gap between what the doctor will not say and what the patient fears.

1.8 The traditions on their own terms, with evidence attached

Ayurveda. The classical texts have no single word for cancer. They describe granthi, a rounded, slow, encapsulated swelling, and arbuda, a large, deep-rooted, fleshy growth that does not suppurate, arising when vitiated doshas lodge in flesh or blood. Adhyarbuda is an arbuda arising where one grew before, and dvirarbuda two growing at once, which modern writers read as recurrence and spread (Amrita University publication). The Sushruta Samhita describes excision (chedya) and cauterisation by alkali (kshara) and by fire (agni) for growths, which is to say that classical Ayurvedic surgery cut out tumours, as Halsted did [VERIFY, the link from these procedures to arbuda specifically was not confirmed in a primary text]. The evidence attached: no trial shows that an Ayurvedic preparation cures a cancer. Robert Saper found lead, mercury or arsenic in 20.7 per cent of 193 Ayurvedic products sold online, and in 40.6 per cent of the rasa shastra preparations, which deliberately include metals (Saper 2008). Grade D for cure, X for metal preparations.

Chinese medicine. In the Chinese tradition a tumour is a mass (zheng jia or liu) arising from stagnation of qi and blood, accumulated phlegm and damp, toxic heat and a deficiency of the body's upright qi, and treatment both attacks the mass and supports the body [VERIFY, read in secondary summaries only]. The evidence attached: Vincent Chung and colleagues gathered 51 meta-analyses of Chinese herbal medicine in cancer. Their quality was unsatisfactory, quality of life improved in many trials, and the evidence on survival and on reducing chemotherapy toxicity was conflicting (Chung 2015). Nearly all trials gave the herbs alongside chemotherapy, so they say nothing about herbs instead of treatment. Grade D for cure, C at most for comfort. Aristolochic acid in some formulas causes urothelial cancer (THRIVING library, SY-02).

Neither tradition, read on its own terms, promised that a remedy would melt a hard growth. Both had surgeons who cut. The claim that they cure cancer by herbs is mostly modern [VERIFY, my inference].

1.9 The quack-cure record

Remedy	Claim	Record	Harm	Grade
Laetrile (amygdalin, from apricot kernels, *Prunus armeniaca*)	Cyanide kills cancer cells	178 patients, Mayo Clinic and others: no benefit, blood cyanide near lethal in some (Moertel 1982)	Cyanide poisoning. One small kernel can exceed a toddler's safe dose (SY-02)	X

Remedy	Claim	Record	Harm	Grade
Hoxsey (paste and tonic)	Paste removes external cancers, tonic cures internal ones	NCI 1950 found 6 biopsies in 77 cases. Banned by the FDA in 1960 as "worthless and discredited". Hoxsey died of prostate cancer in 1974 after conventional surgery (Wikipedia, MSKCC)	Paste of arsenic, antimony, zinc and bloodroot burns tissue	X
Essiac (*Arctium lappa* root, *Rheum officinale* root, *Rumex acetosella* herb, *Ulmus rubra* inner bark)	Ojibwa remedy that cures cancer, Renée Caisse, Bracebridge, Ontario, 1930s	86 patients reviewed in Canada in 1982: 47 no benefit, 17 died, 4 responses all on conventional treatment. Users in a 510-woman cohort had worse quality-of-life scores (CAM-Cancer)	Delay	X for cure
Gerson (juices, coffee enemas, liver extract)	Detoxification cures cancer	NCI and New York review 1947: no effect (MSKCC)	2 deaths from enemas (Eisele and Reay 1980). 13 sepsis cases from liver injections	X
Black salve (*Sanguinaria canadensis* rhizome, zinc chloride)	Draws the cancer out	No trials. Destroys normal and tumour tissue alike (Eastman 2014)	Facial and nasal destruction, cancer left behind (Ong 2014)	X
Mistletoe (*Viscum album*, whole plant extract by injection)	Anthroposophical medicine, Rudolf Steiner 1920	21 trials, 3,484 patients. No high-quality survival benefit (Horneber 2008)	Local reactions. Berries toxic	D for survival, C for quality of life
Baking soda (Tullio Simoncini)	Cancer is a fungus killed by alkali	No evidence. Convicted of manslaughter, 2018, death from alkalosis after 2 days (ANSA 2018)	Metabolic alkalosis, death	X

Remedy	Claim	Record	Harm	Grade
Cannabis (*Cannabis sativa*)	Cures cancer	9 glioblastoma patients given THC, no survival claim (Guzmán 2006). One phase 1b trial of 21 with chemotherapy (Twelves 2021)	Delay. Dizziness, vomiting	D for cure, comfort in ME-05

Laetrile. Charles Moertel's trial gave amygdalin and a metabolic diet to 178 patients with advanced cancer at several American cancer centres. No substantive benefit was seen, and several patients had blood cyanide near the lethal range (Moertel 1982). Of 175 evaluable patients, one met the response criteria (THRIVING library, SY-02).

Hoxsey. Harry Hoxsey claimed his great-grandfather saw a horse cured of a leg cancer by grazing certain plants. His Dallas clinic, opened in 1936, had about 8,000 patients and took about $1.5 million a year in the 1950s. A University of British Columbia review in 1957 of 71 patients found over half dead or worse, and the one apparent effect came with disfigurement. Mildred Nelson moved the treatment to Tijuana in 1963, where it continues (Wikipedia, Hoxsey Therapy, secondary). *Tradition, then record*: the paste is an escharotic of the same family as black salve.

Gerson. Max Gerson's regimen of hourly juices and up to several coffee enemas a day killed at least two people. One patient had 1 to 4 enemas an hour for days and died of low potassium, seizures and cardiac arrest, and another had 4 a day for 8 weeks and died of fluid and salt imbalance (Eisele and Reay 1980). Proponents claim 70 to 90 per cent recovery, with no controlled evidence (MSKCC).

Black salve. Bloodroot is a woodland plant of eastern North America, its rhizome bleeding red-orange sap. Mixed with zinc chloride it is sold as a paste that eats a dark crust into the skin. Eastman and colleagues' review found necrosis of normal tissue, scarring and residual or metastatic cancer under the scab (Eastman 2014). In Australia, a 55-year-old man applied salve to his temple for 4 months and was left with a deep defect (Ong 2014). The FDA lists black salve among fake cancer cures (Consumer Reports, secondary). Do not confuse bloodroot with other spring white-flowered woodland plants. Its lobed single leaf and orange sap are distinctive [VERIFY, identification from general sources].

Mistletoe. European mistletoe (*Viscum album*), a semi-parasite on apple, pine and fir, was proposed for cancer by Rudolf Steiner in 1920 [VERIFY] and is prescribed in German-speaking countries as a fermented injectable extract. Markus Horneber's Cochrane review found 21 trials. Of 13 on survival, 6 reported benefit, none of high quality, and the 2 best trials in melanoma and head and neck cancer found none. Quality of life may improve during chemotherapy for breast cancer. Two authors had received funding from mistletoe manufacturers (Horneber 2008). American mistletoe (*Phoradendron* species) is a different plant. The berries of both are poisonous [VERIFY].

Baking soda. Tullio Simoncini, an Italian former doctor already struck off, was sentenced in January 2018 to 5 years and 6 months for the manslaughter of Luca Olivotto, 27, who had a brain tumour and died in Tirana in 2012 of metabolic alkalosis 2 days after bicarbonate infusions. The family paid €20,000 for 7 infusions (ANSA 2018).

Cannabis. Manuel Guzmán gave THC into the tumour cavity of 9 patients with recurrent glioblastoma. Two showed reduced tumour cell proliferation, and the study was not designed to test survival (Guzmán 2006). In a phase 1b trial, 12 patients on nabiximols spray and 9 on placebo, all on temozolomide, 1-year survival was 83 against 44 per cent, with no difference in progression-free survival and two early deaths in the small placebo arm (Twelves 2021). This is a reason for a trial, not a cure.

The body count. Skyler Johnson's cohort of patients with curable breast, prostate, lung or colorectal cancer who chose alternative medicine alone had 2.5 times the risk of death, 5.7 times for breast cancer (THRIVING library, SY-02). The harm is delay. After the Fall, delay means losing the window in which a skin cancer, a breast lump or a child's eye could still be cut out.

2. Evidence grades

Practice	Grade	Effect and certainty
Untreated natural history (Bloom, Johansson, Wao)	B	Large series, old diagnosis
Trained clinical breast examination	A	Downstaging, mortality cut from 50
Breast self-examination	X	No mortality benefit
Oral visual inspection in tobacco users	A	34 per cent fewer deaths
Symptom PPVs (Hamilton, Nicholson, Clarke)	A	Low single symptom, higher combined
Simple mastectomy against radical	A	Equal survival at 25 years
Skin excision, 4 mm or 6 mm margin	B	Over 95 per cent clearance
Amputation for osteosarcoma alone	B	About 1 in 6 cured
Enucleation for retinoblastoma in the eye	B	Not quantified here [VERIFY]
Bowel resection without blood	B	Historical half died
Palliative surgery for obstruction	B	6 to 32 per cent operative death
Medical management of obstruction	B	38 of 40 (Baines)
Ascites tap	B	Brief relief, no trials
Stopping tobacco	A	Up to 10 years of life
Post-harvest groundnut care	A	Aflatoxin halved
Clean stoves and chimneys	B	Lung cancer odds 1.2 to 4.9
Sun protection	A	SCC down 39 per cent
Morphine by the clock (NU-06, ME-05)	A	Relief good in 76 per cent
Honey or silver on fungating wounds	A, low	Equal, odour improves
Metronidazole, oral or gel	A, very low	One tiny trial each
Charcoal dressing	D	Mechanism only
Mistletoe	D survival, C quality of life	Low quality
Chinese herbs	D cure, C comfort	Poor quality
Ayurvedic preparations	D cure, X metals	Contamination
Laetrile, Hoxsey, Gerson, black salve, bicarbonate	X	Harmful
Essiac	X for cure	No effect
Cannabis for cure	D	No adequate trial

3. Means ledger

Rung	What it can do	What changes
Hands and knowledge	Recognise the four signs, re-examine at 3 weeks, the grave signs, tell the truth as wished, refuse quacks, stop smoking	Earlier finding, no harm by delay or salve, honest farewells
Hearth	Boiled water, salt, honey, sugar, cloth, charcoal in cloth, a fan, positioning, mouth care, groundnut drying and sorting, a chimney	Smell and discharge eased, aflatoxin halved, smoke cut
Garden and still	Opium where the owner allows (ME-05), alcohol for cleansing, a scale for dosing, beeswax for barrier ointment	Pain controlled by the clock
Village dispensary (300)	Trained lay healer, breast and mouth examination, register of lumps and the dying, locked chest, salvaged metronidazole and morphine, catheter, the Kerala-style volunteer rota	Downstaging, home deaths with comfort, retention relieved
District infirmary (3,000)	Nurse or doctor, sterile room. Skin excision, mastectomy, lumps in limbs, enucleation, amputation, colostomy, ascites and chest taps, tracheostomy. Histology only if a microscope and a trained reader exist	Some cancers cured. Obstruction, ascites and airway palliated
Hospital before the Fall	Imaging, pathology, chemotherapy, radiotherapy, blood, intensive care	Cures 80 per cent of child leukaemia, most early breast, cervix and bowel cancers

4. Harm test

Operating on what cannot be cured. A mastectomy on a woman with grave signs adds a wound, infection risk and up to a few per cent mortality without changing the outcome (Biccard 2018, Haagensen and Stout 1943). Signs: fixed lump, skin ulcer, swollen arm. Do instead: comfort.

Too small a margin. A skin cancer excised with too little margin returns, and squamous cell cancer may then spread (Brodland and Zitelli 1992). Every excision goes into the register with its margin, and the scar is re-examined at 3, 6 and 12 months [VERIFY interval, my judgement].

Infection and bleeding. ASOS deaths came mostly after the day of surgery, and infection carried 9.7 per cent mortality even with antibiotics (Biccard 2018). Never in the anaemic, the malnourished or anyone whose death is near.

Morphine. Overdose gives drowsiness, pinpoint pupils, slow breathing and blue lips. Hold the dose below 12 breaths a minute, rouse, breathe for them (THRIVING library, ME-05, NU-06). Never in infants under 1 year or under 10 kg at the village.

Metronidazole. Nausea, metallic taste, and a violent reaction with alcohol [VERIFY, from general knowledge, not a source read here]. Avoid in early pregnancy where possible [VERIFY].

Honey on wounds. Unheated honey can carry Clostridium spores. Not for infants' wounds or deep cavities if the source is unknown (THRIVING library, WO-02).

Escharotic pastes. Black salve and Hoxsey paste burn healthy skin, destroy noses and eyelids and leave cancer under the scab (Eastman 2014, Ong 2014). Never apply. If found in use, stop it, clean the wound and record it.

Coffee enemas and bicarbonate. Fluid and salt imbalance, seizures, death (Eisele and Reay 1980, ANSA 2018).

Apricot and bitter almond kernels. Cyanide. Headache, dizziness, vomiting, collapse. One kernel can harm a small child (THRIVING library, SY-02).

Ayurvedic metal preparations. Lead and mercury poisoning: abdominal colic, anaemia, wrist drop, confusion (Saper 2008) [VERIFY signs].

Withholding the truth. A patient deceived spends money and time on quacks and cannot say goodbye. A patient told brutally may despair [VERIFY, my inference].

5. Red flags

These signs mean cancer that the village cannot cure, and in some the district cannot either.

- Lump fixed to skin or chest wall, ulcerated, with skin like orange peel or hard nodes above the collarbone. Do: comfort, wound care, honest talk.
- Weight loss with a hard liver, yellow skin or a swollen belly. Do: comfort, ascites tap at the district for pressure.
- Coughing blood with weight loss in a smoker. Do: comfort, a fan, NU-06's breathlessness protocol.
- Vomiting, colic and no passing of wind with a known cancer. Do: NU-06's obstruction rules, nothing by mouth but sips, opium.
- A white reflex in a child's pupil or a squint with a bulging eye. Do: take the child to the district now. This is the one red flag that is also a chance of cure.
- A child with pallor, bruising, bone pain and fever that does not settle. Do: comfort, mouth care, no injections into muscle.
- Sudden weakness of both legs with back pain in someone with cancer. Do: comfort, catheter, turning (THRIVING library, NU-01).
- Bleeding from a tumour that will not stop. Do: pressure 10 minutes, dark cloths, sedative ready [OWNER].
- Noisy breathing and stridor from a throat tumour. Do: sit up, calm, morphine, district for tracheostomy if wished [OWNER].

6. The case against

Against surgery. Bernard Fisher's trials ended a century of surgeons removing more tissue than needed (Fisher 2002). The case against surgery after the Fall is that the infirmary will be tempted to operate on hopeless cancers because it can, adding deaths to deaths. The African data show that even with blood and antibiotics, 1 in 50 die (Biccard 2018). Critics of palliative surgery such as Paul Olson and colleagues show that up to a third may die from an operation meant to comfort (Paul Olson 2014).

Against screening. H. Gilbert Welch, with Lisa Schwartz and Steven Woloshin in *Overdiagnosed* (2011, not read), and Welch and Black (2010) argue that looking for cancer finds cancers that would never have harmed, and the Korean thyroid epidemic shows it (Ahn 2014). A village that examines breasts or mouths will cut some lumps that would have been harmless.

Against the alternatives. Edzard Ernst and Simon Singh in *Trick or Treatment* (2008, read via secondary summary) and Skyler Johnson's cohort (SY-02) make the case that alternative cancer cures kill by delay. Ernst's own criticism of mistletoe is that the positive trials are the weakest ones.

Against palliative care romance. Alejandro Jadad criticised the WHO ladder's evidence base, and the Neuberger review of the Liverpool Care Pathway showed how a comfort protocol can become neglect (THRIVING library, NU-06). Morphine supply decides whether comfort is real.

Against honesty romance. Holland's survey showed that most of the world's doctors once withheld the diagnosis, and the family-centred cultures that did so were not simply wrong (Holland 1987). A rule written in northern Europe may wound elsewhere.

Against this report. The old series describe late cancers in an era of poor hygiene and nutrition. Cancers after the Fall may be found later still, or earlier through village examination, and I have no data for either [VERIFY].

7. 10-line summary

1. Untreated breast cancer killed most women within 5 years, but some lived over 15 (Bloom 1962).
2. Early prostate cancer was quiet for 15 years and then killed faster (Johansson 2004).
3. Untreated lung cancer killed within about 7 months, childhood leukaemia within about 4.
4. A single symptom rarely means cancer. Persistence, age and combination do.
5. Trained clinical breast examination saved lives from age 50. Self-examination did not.
6. Simple mastectomy was as good as Halsted's radical one over 25 years.
7. Skin cancers are cured by excision with a 4 to 6 mm margin.
8. Prevention gains most: tobacco, groundnut storage, clean stoves, sun, alcohol.
9. Comfort means morphine by the clock, honey or silver on wounds, and Kerala's volunteers.
10. Laetrile, Hoxsey, Gerson, black salve and bicarbonate killed or maimed. None cured.

8. Open questions

- How fast untreated early colorectal and cervical cancers kill. No series found.
- What cure rate a district surgeon without pathology achieves for breast and skin cancer [VERIFY].
- Whether enucleation alone, without chemotherapy, cures most intraocular retinoblastoma [VERIFY].
- Whether charcoal or honey from village hives works as well as medical-grade products on fungating wounds.
- What patients in non-disclosure cultures want to be told.
- Whether mistletoe improves quality of life outside chemotherapy.
- Whether village breast and mouth examination, without referral to surgery, does more good than harm [OWNER].
- How much opium a village needs for its cancer deaths per year [VERIFY, ME-05 open question].

9. Sources to read in full

1. Bloom, Richardson and Harries 1962, BMJ, the untreated breast series.
2. Johansson 2004 and Popiolek 2013, the Swedish prostate cohort.
3. Fisher 2002, NEJM, the 25-year B-04 results.
4. Halsted 1894, Annals of Surgery.
5. Baines 1985, Lancet, on medical management of obstruction.
6. Horneber 2008, Cochrane, on mistletoe.
7. Moertel 1982, NEJM, on laetrile.
8. Welch, Schwartz and Woloshin 2011, *Overdiagnosed* (not read).
9. Mittra 2021, BMJ, on clinical breast examination in Mumbai.
10. Turner 2005, Lancet, on post-harvest aflatoxin control.

10. At the bedside after the Fall

Household. Minimum: know the four signs (lump, non-healing ulcer, unexpected bleeding, weight loss), take them to the healer, keep the dying clean, turned, fed as they wish and accompanied, and refuse salves and miracle cures. Needs: honey, sugar, boiled water, cloth, a fan, a chimney, groundnuts dried and sorted. First failure: the family hides the diagnosis, buys a cure and the window for excision closes.

Village of 300. Minimum: a lay healer who examines breasts and mouths on request, keeps a register of every lump and ulcer with a date to recheck, applies the grave signs, runs the comfort round with opium from the locked chest, and dresses wounds. Expect roughly 1 to 3 new cancers a year in 300 people [VERIFY, inferred from rich-country incidence of about 400 to 600 per 100,000, likely lower in a younger population]. Needs: a register, a measuring tape, the weight card, morphine or opium, metronidazole if salvaged, catheters, volunteers trained on the Kerala pattern. First failure: running out of opium in the last weeks of a death.

District of 3,000. Minimum: a surgeon who excises skin cancers and breasts without grave signs, removes eyes for retinoblastoma, taps ascites and does colostomy or tracheostomy when wished. A record of every operation and its outcome at 1 year. Needs: a sterile room, instruments, local anaesthetic, sutures, a microscope and someone who can read tissue if possible, the WHO checklist (THRIVING library, WO-09). First failure: operating on hopeless cancers and losing patients to infection.

11. Protocols

Protocol 1. The lump, ulcer or bleeding visit (village healer)

1. Ask: what, where, since when, growing or not, pain, weight change, smoking, chewing, alcohol.
2. Look and feel. Measure any lump or ulcer with a tape in centimetres. Draw it in the register with the date.
3. Check for grave signs: fixed to skin or deep, ulcerated, orange-peel skin, satellite nodules, hard nodes in the armpit over 2.5 cm or above the collarbone.
4. If a lump or ulcer has no grave signs and is under 2 cm, recheck in 3 weeks [VERIFY interval]. An ulcer that has not healed or a lump that has grown goes to the district.
5. If grave signs are present, tell the patient what they wish to know (Protocol 6) and start the comfort round (Protocol 4).
6. Bleeding after the menopause, blood in the stool in someone over 50 with weight loss, or coughing blood in a smoker: record and refer to the district within 2 weeks [VERIFY interval].
7. A white pupil or squint in a child: refer the same week.
8. Write the outcome at each visit. Never apply salves, pastes or caustics.

Protocol 2. Clinical breast examination (village)

The technique belongs to MA-11 when written. Until then: 1. Offer it to women over 40 at each visit, in privacy, with a woman present. 2. Record any lump: side, clock position, size in centimetres, mobile or fixed. 3. Any new lump in a woman over 30 is rechecked after the next menstrual period or in 3 weeks [VERIFY interval]. 4. A lump that persists goes to the district.

Protocol 3. Deciding a cancer operation at the district (surgeon)

This is the decision, not the operation (THRIVING library, WO-09). 1. Confirm the diagnosis as far as possible. Record size, site, nodes and grave signs. 2. Operate with intent to cure only when the tumour is localised, without grave signs and removable without transfusion. 3. Skin: excise with a margin of 4 mm of normal-looking skin for small, well-defined lesions and at least 6 mm for those 2 cm or more, poorly defined or on the ear, lip, nose, eyelid or scalp (Wolf and Zitelli 1987, Brodland and Zitelli 1992). Without a microscope, add rather than trim. 4. Breast: simple removal of the breast, not the radical operation (Fisher 2002). 5. Limb bone tumour: amputation only

after telling the family that cure is about 1 in 6 or fewer. 6. Eye: enucleation for retinoblastoma inside the eye. 7. Bowel: resection or colostomy only for obstruction or bleeding in a patient who will die otherwise, with the family told that perhaps half may die of the operation [VERIFY]. 8. Run the checklist and record the operation, margin, complications and outcome at 1 month and 1 year.

Protocol 4. Comfort round for cancer, at every rung

Use NU-06 Protocol 1 and ME-05 Protocol 3. In summary: 1. Every 4 hours: pain, breathing, mouth, skin, bowels, bladder, position. 2. Morphine by the clock as ME-05: adult 5 mg every 4 hours, 2.5 mg old or frail, rescue dose equal to the regular dose, recompute daily, laxative from day 2. Hold below 12 breaths a minute. 3. Child: ME-05 weight card only, never under 1 year or under 10 kg at the village. 4. Breathlessness: sit up, fan to the face at about 15 cm, calm, low-dose morphine (NU-06). 5. Record every dose in the register.

Protocol 5. Fungating wound dressing

1. Wash hands. Remove the old dressing gently, soaking it off with boiled, cooled water if stuck.
2. Irrigate with boiled, cooled water or saline. Do not scrub.
3. Apply honey thickly on the pad or sugar into cavities (THRIVING library, WO-02 Protocols 4 and 5).
4. If salvaged: metronidazole 0.75 per cent gel once or twice daily, or oral metronidazole 200 to 400 mg three times a day for 7 days (NHS Highland 2023, NHS Tayside).
5. Cover with an absorbent pad. Over it, charcoal sealed in clean cloth for smell [VERIFY].
6. Bleeding: press 10 minutes with a pad. Adrenaline or tranexamic acid on gauze if salvaged.
7. Change daily or when soaked. Protect the skin around with fat or beeswax ointment.
8. Use dark cloths and keep a bowl and towels ready for a large bleed.

Protocol 6. Telling the news

1. Choose a quiet place and time. Sit down.
2. Ask the patient: how much do you want to know? Who do you want here?
3. Say it plainly in their words. Give the truth about cure, not numbers unless asked.
4. Say what will be done: comfort, presence, no abandonment.
5. Warn against bought cures kindly but firmly.
6. Record what was said and to whom.

Protocol 7. Recognising a quack cure

A cure is a quack cure if any two apply [VERIFY, my rule]: 1. It claims to cure all cancers. 2. It draws the cancer out through the skin. 3. It requires payment before results. 4. It forbids other treatment. 5. Its proof is testimony, not records. 6. It contains apricot kernels, arsenic, bloodroot or caustic.

12. Numbers to carry

1. Untreated breast cancer: 18 per cent alive at 5 years (Bloom 1962).
2. Untreated lung cancer: about 7 months (Wao 2013).
3. Childhood leukaemia untreated: median about 4 months.
4. Skin cancer margin: 4 mm, or 6 mm for high-risk.
5. Grave signs of the breast: fixed, ulcerated, orange skin, nodes over 2.5 cm.
6. Surgery in Africa with blood and antibiotics: 2 in 100 die (Biccard 2018).
7. Morphine adult 5 mg every 4 hours, hold below 12 breaths a minute (ME-05, NU-06).
8. Stopping smoking at 30 avoids almost all the excess risk (Doll 2004).
9. Groundnut care halves aflatoxin (Turner 2005).

10. Recheck a lump or ulcer in 3 weeks.

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