

A systematic literature review of the studies published between January 2000 to March 2021 was carried out using the MEDLINE database. This search used indexing terms as follows: ablation, administration, adult, adverse effect, adverse event, aminolevulinic acid, aminoquinolines, anticarcinogenic agents, antineoplastic agents, antiviral drugs, antivirals, biopsy, brachytherapy, carcinoma in situ, carcinoma in situ of the vulva, cavitation ultrasonic surgical aspiration, cavitation ultrasonic surgical aspirator, cavitation ultrasound therapy, cidofovir, CO<sub>2</sub> laser vaporisation, CO<sub>2</sub> laser vaporization, cold knife, cold knife ablation, cold knife biopsy, complications, conservative surgery, conservative treatment, control, cryotherapy, CUSA, cytosine, differentiated vulvar intraepithelial neoplasia, differentiated vulvar intraepithelial neoplasia, excision, female, fertility, fertility outcome, fertility preservation, fertility sparing, fertility sparing management, fertility sparing surgery, fertilitypreserving treatment, high-grade squamous intraepithelial lesion, human papillomavirus therapeutic vaccines, humans, gynaecological surgery, gynaecological surgical procedure, gynecologic surgery, gynecologic surgical procedure, imiquimod, immune modulating drugs, immune modulators, indoles, laser, laser ablation, laser therapy, loop electrosurgical excision procedure, loop electrosurgical excision procedure conization, loop electrosurgical excision procedure specimen, medical interventions, observation, organophosphonates, photochemotherapy, photodynamic therapy, photosensitizing agents, postoperative complications, postoperative recurrence, pre-invasive vulval disease, pre-invasive vulvar disease, quality of health care, quality of life, radiation therapy, radiofrequency ablation, radiofrequency, radiotherapy, recurrence, recurrent disease, relapse, reoperation, residual disease, residual tumour, side effects, suction, surgery, surgical intervention, surgical management, surgical outcome, surgical outcome criteria, surgical procedures, surgical resection, surgical treatment, survival, survival rate, survival analysis, therapeutic agents, therapeutic use, topical, topical imiquimod, toxicity, treatment, treatment outcome, ultrasonic therapy, vaccines, vulval atypia, vulval Bowen, vulval Bowen disease, vulval bowenoid, vulval Bowen papulosis, vulval carcinoma in situ, vulval intraepithelial neoplasia, vulval Paget disease, vulval melanoma, vulval melanoma in situ, vulval melanosis, vulvar atypia, vulvar Bowen, vulvar Bowen disease, vulvar bowenoid, vulvar Bowen papulosis, vulvar carcinoma in situ, vulvar intraepithelial neoplasia, vulvar Paget disease, vulvar melanoma, vulvar melanoma in situ, vulvar melanosis.

The literature search was limited to publications in English, Italian, Spanish, Portuguese, German, and French. Priority was given to high-quality systematic reviews, meta-analyses, and randomized controlled trials but lower levels of evidence were also taken into consideration. Narrative reviews/guidelines and ongoing trials/protocols have also been collected (MEDLINE database, Cochrane Central Register of Controlled Trials, ISRCTN registry, ClinicalTrials (NIH), World Health Organization International Clinical Trials Registry Platform). The search strategy excluded editorials, case reports, letters, and *in vitro* studies.

A total number of 192 articles were retrieved, 89 on squamous vulvar intraepithelial neoplasia (VIN), 33 on vulvar Paget's disease (VPD) and 26 on vulvar melanoma in situ (MIS). Further 12 articles with more than one preinvasive disease and 32 reviews were considered.

For the management section, papers with less than 20 patients were excluded.

Data extraction was performed for all articles dealing with treatment by two independent teams with double-checking.