Modified lot quality assurance sampling (LQAS) for quality assessment of malaria parasite microscopy and rapid diagnostic tests (RDT) in Kano, Nigeria

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Appropriate Quality Assurance (QA) of parasite-based diagnosis of malaria to justify Artemisinin-based Combination Therapy (ACT) is essential for Malaria Programs. In low and Middle Income Countries (LMIC), resource constrain appears to be a major challenge in implementing the conventional QA system. We designed and implemented a modified LQAS model for QA of malaria parasite (MP) microscopy and RDT in a State Specialist Hospital (SSH) and a University Health Clinic (UHC) in Kano, Nigeria. The capacities of both facilities for MP microscopy and RDT were assessed before implementing a modified LQAS over a period of 3 months. Eight quality indicators were monitored and evaluated. The capacities for MP microscopy were 59% and 55% for SSH and UHC respectively. At a daily average of 16 to32 blood samples tested and a blood film quality of >70% recorded in both facilities, MP positivity rates of 50% (using microscopy) and 46% (using RDT) were recorded. Higher concordance rates of 88% by microscopy and 73% by RDT were recorded in SSH, while in UHC, lower concordance rates of 19% using microscopy and 28% using RDT were recorded. Error rates were higher when RDT was used than with microscopy, while sensitivity and specificity were higher when microscopy was used (95% and 84% in SSH; 94% in UHC) than when RDT was used (72% and 76% in SSH; 78% and 81% in UHC). It could be feasible to implement an integrated QA model for MP microscopy and RDT using modified LQAS in Malaria Control Programs in LMIC.

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Impact of radiotherapy treatment on Jordanian cancer patients’ quality of life and fatigue

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Purposes: The purposes of this study were to (1) examine the impact of radiotherapy treatment on Jordanian cancer patients’ quality of life (QOL) and fatigue, (2) explore the relationship between fatigue and quality of life among Jordanian patients who receive radiotherapy as a primary treatment for their cancer.

Design: One group quasi experimental co-relational design was used with 80 patients who had been diagnosed with cancer and required radiotherapy treatment.

Methods: Quality of life was measured using the Functional Assessment of Cancer Therapy-General (FACT-G). Fatigue was measured using Piper Fatigue Scale (PFS). Data were collected over a period of three months and analyzed using descriptive statistics, paired-sample t-test and Pearson Product Moment Correlation.

Results: Statistically significant differences were found between pre and post radiotherapy QOL mean total scores, as well as physical, emotional, sexual and functional wellbeing dimensions. Statistically significant differences were found between pre and post radiotherapy fatigue mean total scores, as well as on behavioral, affective, sensory and cognitive dimensions of PFS. Quality of life total scores correlated significantly and negatively with total fatigue scores.

Conclusion: Results were discussed in light of Arab Moslem culture and implications were made for nursing research, practice, education and administration.